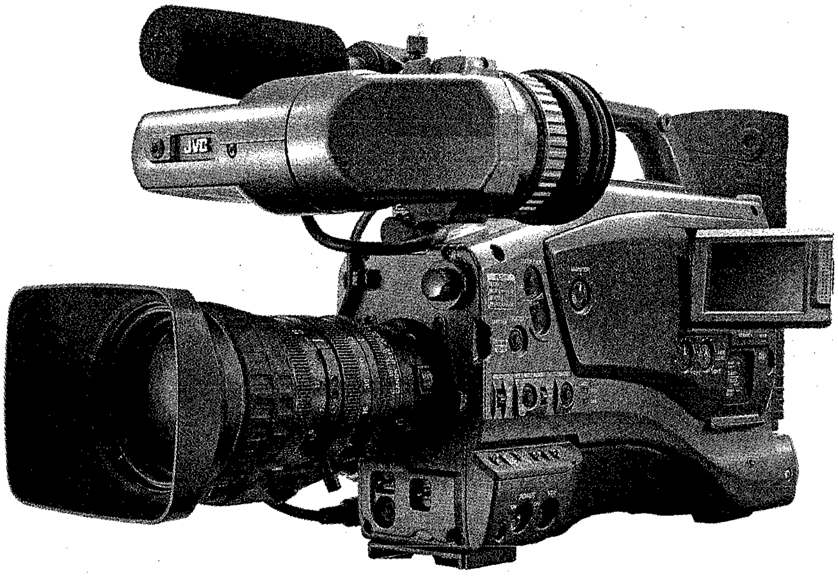
JVC®

SERVICE MANUAL

DV CAMCORDER

GY-DV5000U(A)/GY-DV5000E(A)
GY-DV5001E(A)/GY-DV5001EC(A)



The photo shows the GY-DV5000 DV camcorder with an optional lens, viewfinder, microphone and mic holder.

DV Mini DV

PROFESSIONAL DV

Due to a software update the model name on the serial number plate of the GY-DV5000 has been changed to GY-DV5000(A) for units after the serial number listed below.
This service manual only describes the mattes that are difference from the GY-DV5000.
On servicing, refer to the service manual of GY-DV5000 (No. 60148) together with this manual.
The differences are as described in Section 1.

GY-DV5000U(A)	: Production for September 2003 and after
GY-DV5000E(A)	: Production for September 2003 and after
GY-DV5001E(A)	: Production for September 2003 and after
GY-DV5001EC(A)	: Production for September 2003 and after

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No. HC001
February 2004

*** A part of tis service manual is described by English and Japanese.**

1. SECTION 1 SERVICE CAUTIONS

1.1 Difference between GY-DV5000(A) and GY-DV5000

(1) Software for each CPU

Board	Symbol	GY-DV5000(A)	Latest virsion for GY-DV5000	Remarks
DBCP	IC801	PLSC1440-V5-01 PLSC1455-V5-01	PLSC1440-V1-09 PLSC1455-V1-09	SYS (GY-DV5000U/E) SYS (GY-DV5001E/EC)
DBCP	IC701	PLSC1441-V5-00	PLSC1441-V2-01	CAM
DV/CPU	IC302	PLSC1143-V5-00	PLSC1143-V2-06	MSD
DBCP	IC402	PLSC1442-V1-01 PLSC1443-V1-01	PLSC1442-V1-00 PLSC1443-V1-00	FPGA (GY-DV5000U) FPGA (GY-DV5000E/5001E/EC)

Note : In GY-DV5000(A), firmware of all the microcomputers and firmware of FPGA have been upgraded. As the version of the microcomputer firmware shows, the upgraded firmware is not compatible with the previous firmware. When you want to upgrade firmware of microcomputers for the purpose of service work, maintenance, or other puroses, upgrade all the firmeware of all the microcomputers and firmware of FPGA.

To upgrade firmware of SYS/CAM/MSD microcomputers, use NetImpress made in YDC Corporation. To upgrade firmware of FPGA, use a special cable and upgrading software made in XILINX Corporation. For details, see the homepage of Professional Products Systems & Network Sector in JS-NET.

(2) PACKING

Page	Ref. No.	GY-DV5000(A)	GY-DV5000	Remarks
7-1		LWT0138	None	Additional Instruction Sheet

(3) OVERALL WIRING

Page	Ref. No.	GY-DV5000(A)	GY-DV5000	Remarks
4-4	—	WJN0122-001A	None	See next page.

Note : This wire assembly (WJN0122-001A) is used only for redirecting the output of IEEE1394 (DV signal) from the "DV IN/OUT" terminal to an extention terminal on the rear panel.
At the time of shipment, this wire assembly is not used. Therefore, one side (DV UNIT side) is not connected to anywhere.
If the following change is made when this model is connected to special application such as DR-DV5000 of FOCUS Enhancements, Inc., DV signal can be directly sent to and received from DR-DV5000.
In this case, remove the existing wire from the CN101 on the DV unit, and connect this wire assembly to the CN101.
This change redirects the output of IEEE1394 (DV signal) to an extension terminal on the rear panel.

Caution : However, this change (remodeling) makes it impossible that a usual "DV IN/OUT" terminal sends and receives DV signal.

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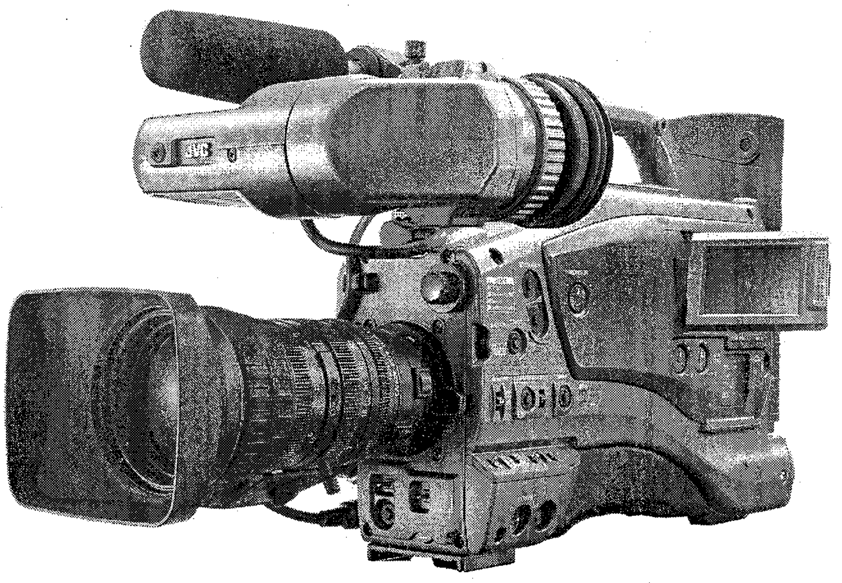
VIDE-V30401

SERVICE MANUAL

DV CAMCORDER

GY-DV5000U/GY-DV5000E



The photo shows the GY-DV500 DV camcorder with an optional lens, viewfinder,microphone and mic holder.

DV Mini DV
PROFESSIONAL DV

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No. 60148
November 2002

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Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

●Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the ⚠ symbol and shaded (▨) parts are critical for safety.
   Replace only with specified part numbers.
   Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.
   Caution for continued protection against fire hazard.
   Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers
   4) Insulation sheets for transistors
   5) Barrier

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

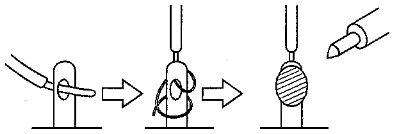


Fig.1

7. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

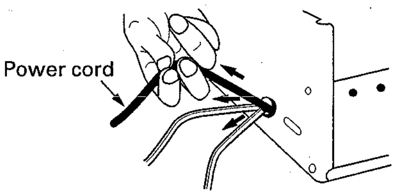


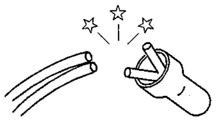
Fig.2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)
    In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector
    In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

    1) **Connector part number** : E03830-001
    2) **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.
    3) **Replacement procedure**
       (1) Remove the old connector by cutting the wires at a point close to the connector.
       Important : Do not reuse a connector (discard it).



cut close to connector

Fig.3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

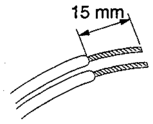


Fig.4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

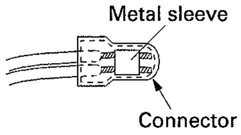


Fig.5

(4) As shown in Fig.6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

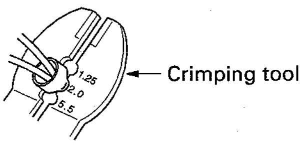


Fig.6

(5) Check the four points noted in Fig.7.

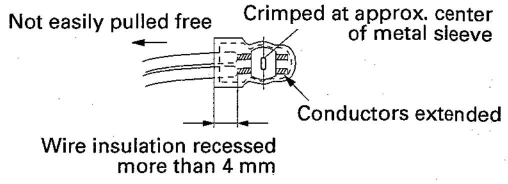

Not easily pulled free
Crimped at approx. center of metal sleeve
Conductors extended
Wire insulation recessed more than 4 mm

Fig.7

• Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions, Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. **Insulation resistance test**
   Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

2. **Dielectric strength test**
   Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

3. **Clearance distance**
   When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

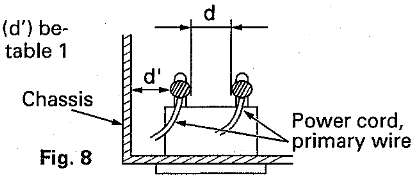


Fig. 8

4. **Leakage current test**
   Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).
   Measuring Method : (Power ON)
   Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure 9 and following table 2.

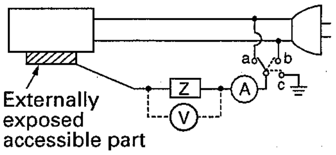


Fig. 9

5. **Grounding (Class I model only)**
   Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).
   Measuring Method:
   Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.

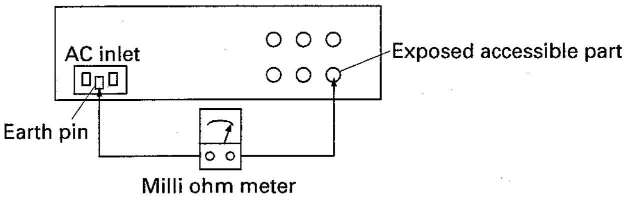


Fig. 10

Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	Z ≦ 0.1 ohm
Europe & Australia	Z ≦ 0.5 ohm

AC Line Voltage	**Region**	**Insulation Resistance (R)**	**Dielectric Strength**	**Clearance Distance (d), (d')**
100 V	Japan	R ≧ 1 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3 mm
100 to 240 V			AC 1.5 kV 1 miute	d, d' ≧ 4 mm
110 to 130 V	USA & Canada	–	AC 900 V 1 minute	d, d' ≧ 3.2 mm
110 to 130 V 200 to 240 V	Europe & Australia	R ≧ 10 MΩ/500 V DC	AC 3 kV 1 minute (Class II) AC 1.5 kV 1 minute (Class I)	d ≧ 4 mm d' ≧ 8 mm (Power cord) d' ≧ 6 mm (Primary wire)

Table 1 Specifications for each region

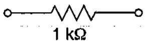
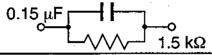
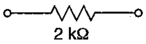
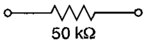
AC Line Voltage	**Region**	**Load Z**	**Leakage Current (i)**	**a, b, c**
100 V	Japan		i ≦ 1 mA rms	Exposed accessible parts
110 to 130 V	USA & Canada		i ≦ 0.5 mA rms	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia		i ≦ 0.7 mA peak i ≦ 2 mA dc	Antenna earth terminals
			i ≦ 0.7 mA peak i ≦ 2 mA dc	Other terminals

Table 2 Leakage current specifications for each region

Note: These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

SECTION 1
SERVICE CAUTIONS AND DUSASSEMBLY

1.1 RESETTING THE POWER CIRCUIT PROTECTION BREAKER

This unit employs a power circuit protection breaker in place a fuse to disconnect from the main power and to thus protect the internal circuitry from damage caused by any current overload. The power can be re-connected by resetting the breaker.

> **To prevent any complications resulting from the failure, check the cause of the shutdown and repair it before resetting the circuit breaker.**

(1) Switch OFF the POWER of this unit as well as that of any equipment supplying power it.
(2) The circuit breaker (A) is located below the VCR at the rear. Press the BREAK button to re-connect the power line.

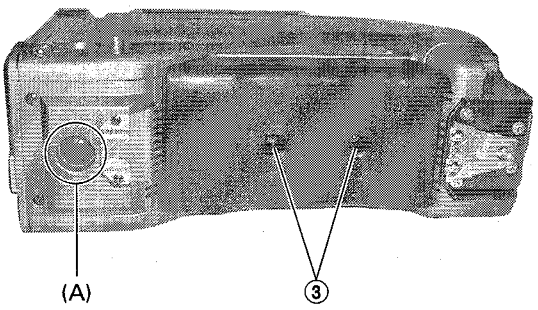


Fig. 1-1 Breaker arrangement

1.2 REMOVING THE EXTERIOR COVERS

1.2.1 Removing the left side cover

(1) Open the cassette cover by pressing the EJECT switch.
(2) Loosen the 4 screws ① and remove the left side cover.

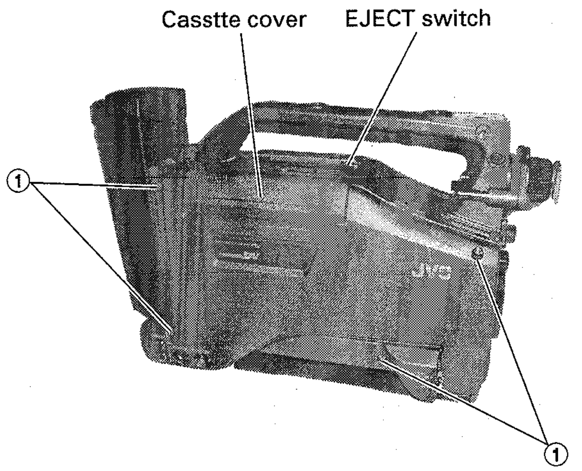


Fig. 1-2-1 Removing the left side cover

1.2.2 Opening the Right side cover

(1) Loosen the 4 screws ②.

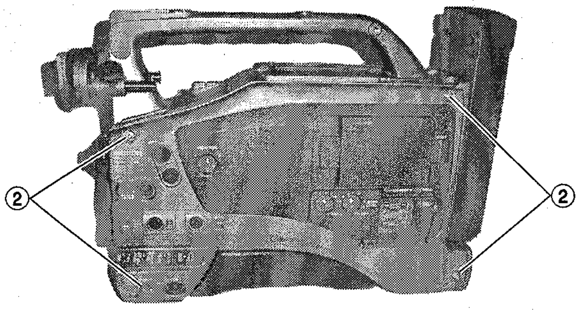


Fig. 1-2-2(1) Opening the Right side cover

(2) Flip open the right side cover toward the front.

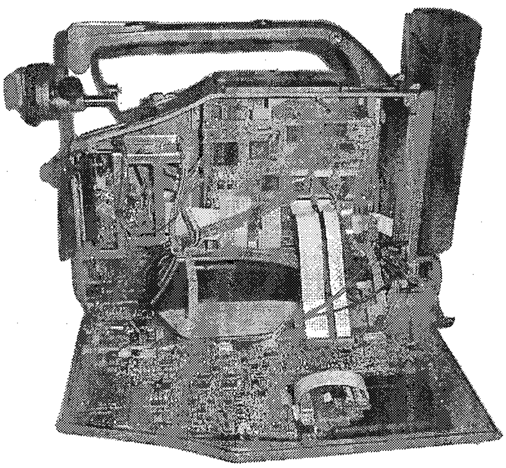


Fig. 1-2-2(2) The state which opened the light side cover

1.2.3 Removing the bottom cover

(1) Remove the left side cover (see section 1.2.1).
(2) Removing the 2 screws ③ and remove the shoulder pads (see Fig.1-1).
(3) Remove the 4 screws ④ and remove the bottom cover.

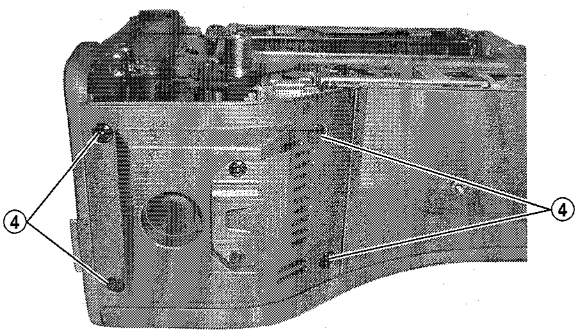


Fig 1-2-3 Removing the bottom cover

1.3 LAYOUTS THE MAJOR BOARDS

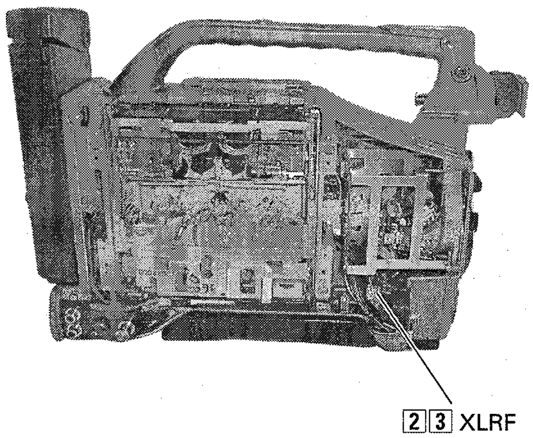


Fig. 1-3-1

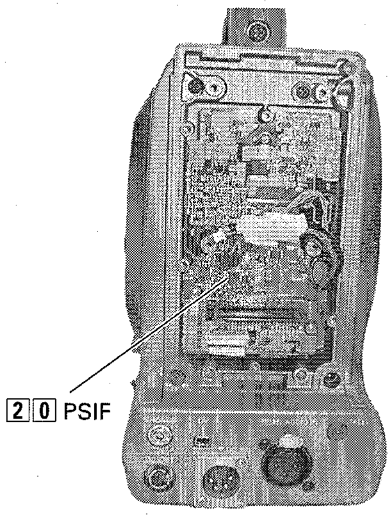


Fig. 1-3-2

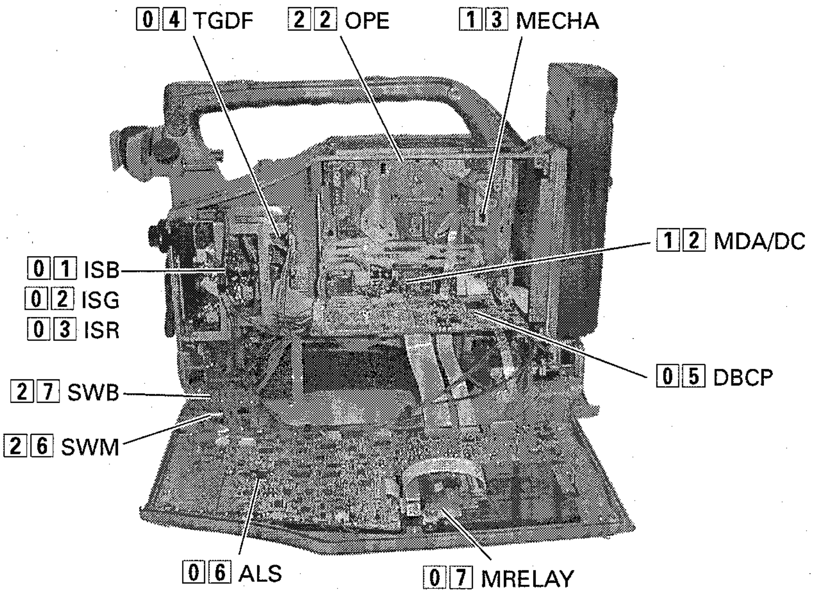

04 TGDF
22 OPE
13 MECHA
12 MDA/DC
01 ISB
02 ISG
03 ISR
27 SWB
26 SWM
05 DBCP
06 ALS
07 MRELAY

Fig. 1-3-3

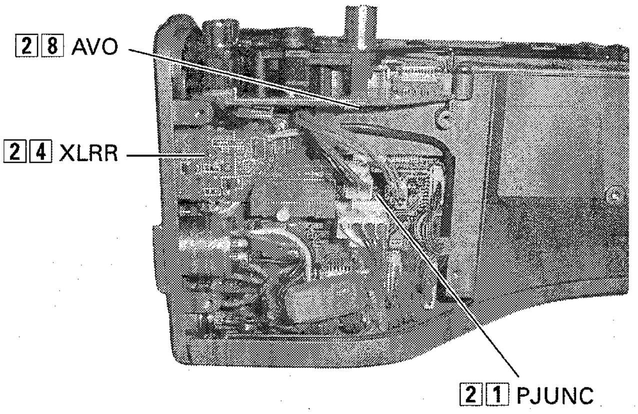

28 AVO
24 XLRR
21 PJUNC

Fig. 1-3-4

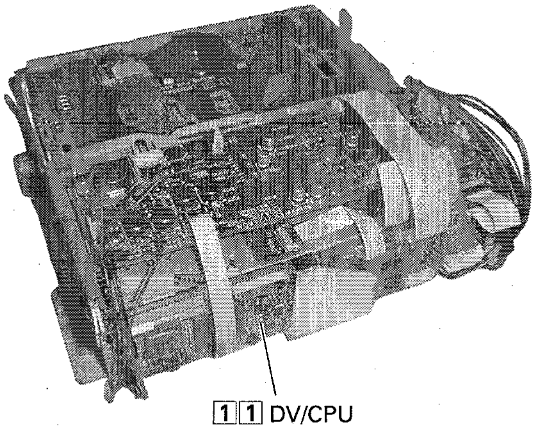


Fig. 1-3-5

1.4 REMOVING THE OPTICAL BLOCK ASSEMBLY AND THE OPTICAL FILTER ASSEMBLY

(1) Remove the right side cover (see section 1.2.2).
(2) Remove the 4 screws ①.

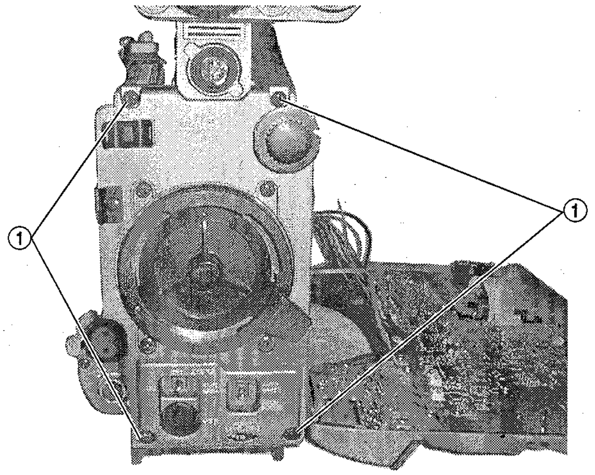


Fig. 1-4-1

(3) Remove the wire assembly from the connector CN4,CN33 and CN35, and pull the optical block assembly and front panel together with the front.

CAUTION
Be careful not to damage the boards or FFC cables.

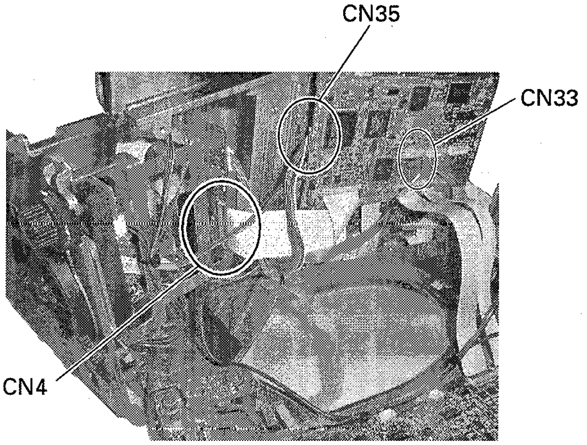


Fig.1-4-2

(4) Remove the 4 screws ②, then remove the TGDF board and mounting bracket.

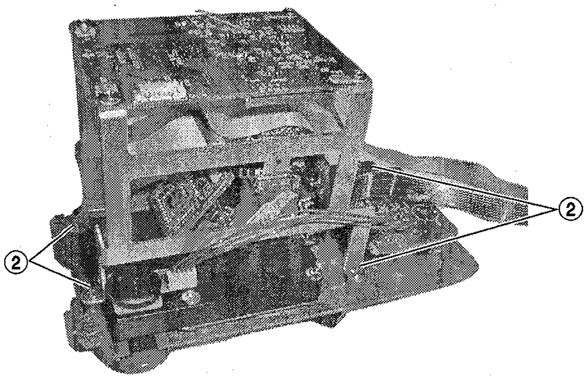


Fig.1-4-3

(5) Flip open CN1,CN2 and CN3 and unplug the FFC cable.

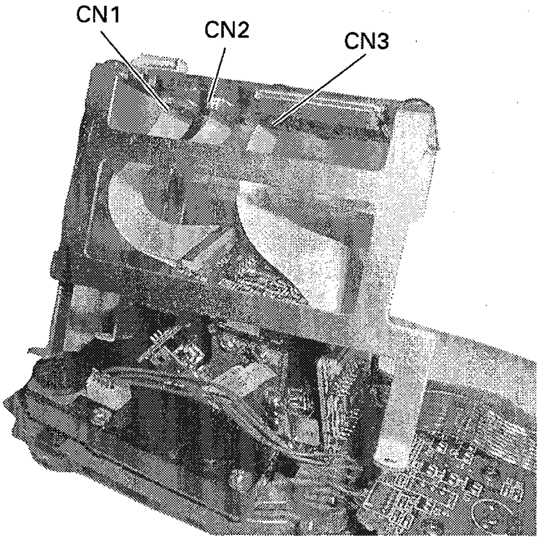


Fig.1-4-4

(6) Loosen the 2 screws ③ and remove the connector (B), then remove the optical filter assembly in the direction of the arrow.

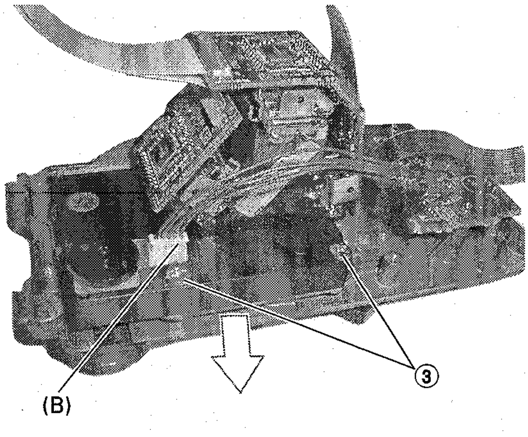
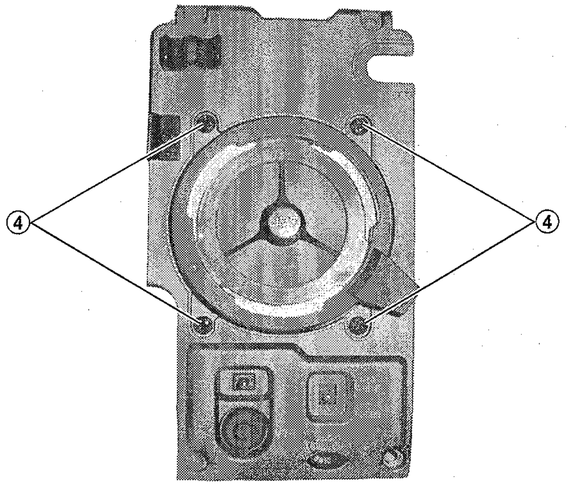


Fig.1-4-5

(7) Removing the 4 screws ④ and separate the optical block assembly from the front panel.



Note :

- The CCDs are bonded precisely to the prism. In case of trouble with a CCD, it is not possible to replace an individual CCD, but the entire optical block assembly should be replaced.
- The optical block assembly supplied as a service part (SCM1210-N0A (NTSC), SCM1210-P0A (PAL)) is not equipped with the TGDF board. When replacing the optical block assembly , attached the surrounding PC boards to the new assembly before mounting in the camera.

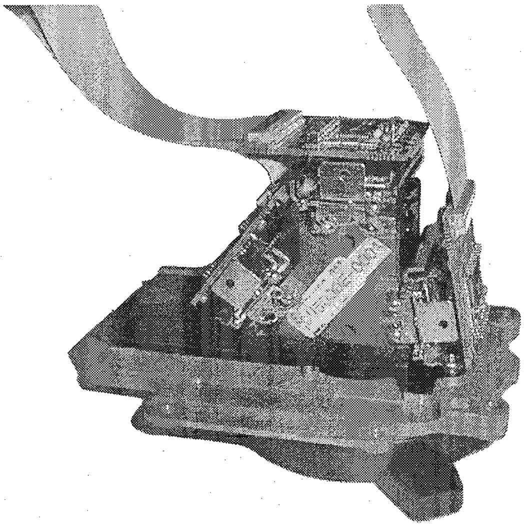


Fig. 1-4-7

CAUTION

When mounting the optical block assembly in the camera, take care of the positioning of the wire assembly. A malfunction may be occur if a wire is somehow caught up.

1.5 REMOVING MAJOR BOARDS FROM THE CAMERA

1.5.1 Removing the TGDF board.

(1) Remove the optical block assembly together with TGDF front panel. (see section 1.4)

(2) Remove the 4 screws ①. Now the TGDF board can be removed.

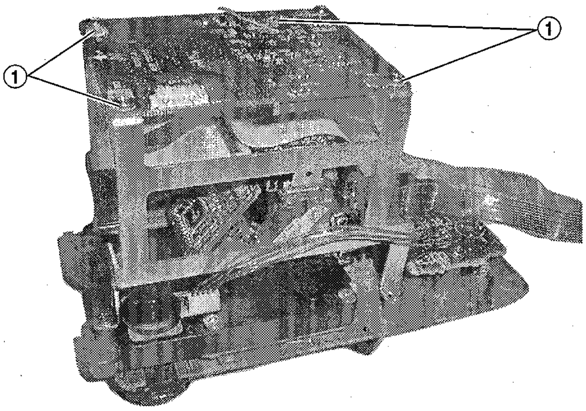


Fig.1-5-1(1)

(3) Be careful and gently unplug the flexible cables connecting the IS board and the TGDF board at the TGDF board side.

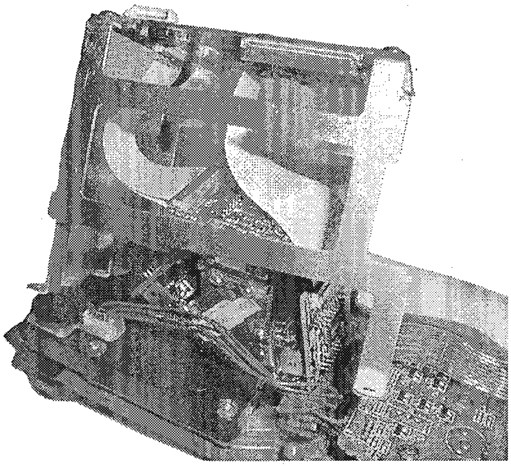


Fig. 1-5-1(2)

1.5.2 Removing the DBCP board

(1) Open the right side cover (see section 1.2.2).

(2) Remove the 2 screws ②, Now the DBCP board can be opened in the direction of arrow.

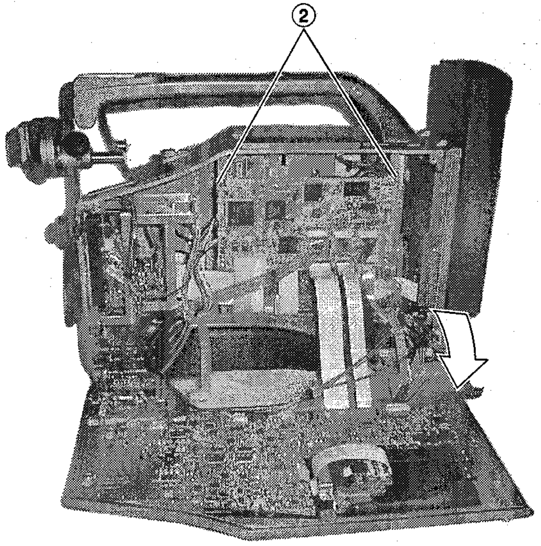


Fig. 1-5-2

1.5.3 Removing the ALS board

(1) Open the right side cover (see section 1.2.2).

(2) Remove the 9 screws ③. Now the ALS board can be removed.

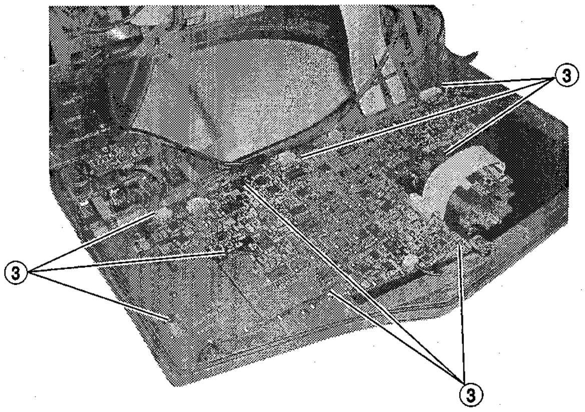


Fig. 1-5-3(1)

(3) Be careful do not damage each wire assembly and FFC cables when removing ALS board.

1.6 REMOVING THE LCD MONITOR

(1) Open the right side cover (see section 1.2.2). And remove the each wire assembly and FFC cable from ALS board side.

(2)Remove the 1 screws ① at the front of right side cover. Then slide the cover plate toward the arrow side and remove it.

(3) Remove the 2 screws ②.

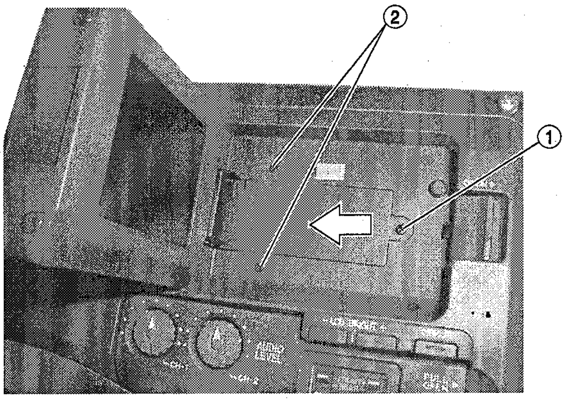


Fig. 1-6-1

(4) Remove the 2 screws ③ fixed on bracket and 2 screws ④ fixed on M RELAY board.

(5) Remove FFC cable from CN911 gently and remove M RELAY board.

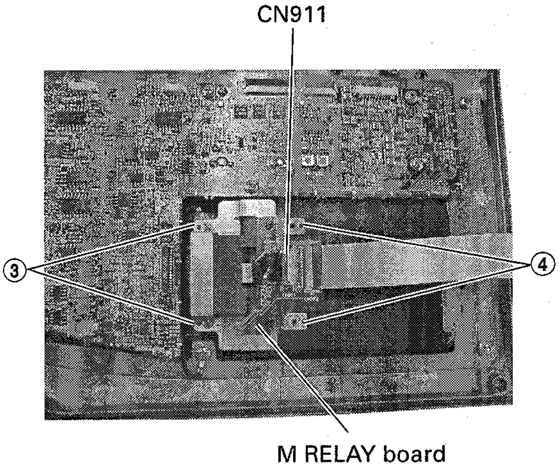


Fig.1-6-2

(6) TURN the LCD monitor screen so that the face upward, and push it toward the inner side of the right side cover as shown in figure.

(7) When the LCD monitor is shifted in the direction of the arrow while pushed, it is possible to remove by the LCD monitor's moving from the opening to the inside of the cover.

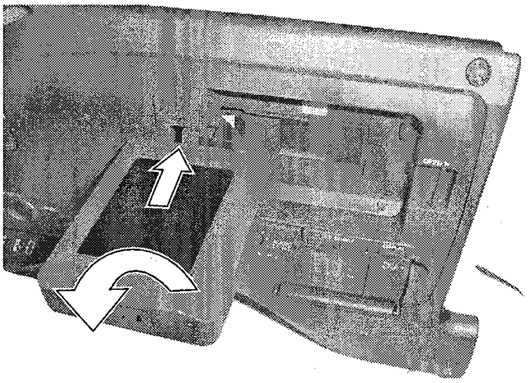


Fig.1-6-3

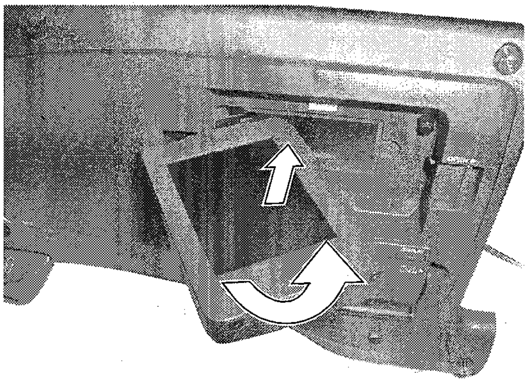


Fig.1-6-4

1.7 REMOVING THE VCR UNIT

(1) Remove the left side cover (see section1.2.1)

(2) Remove the 4 screws ① fixed on VCR unit.

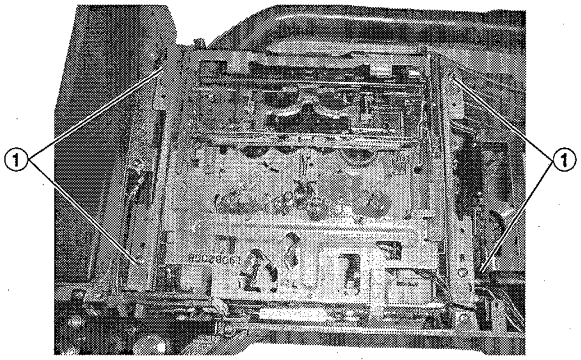


Fig.1-7-1

(3) Lift up the VCR unit gently by upside first, and remove the wire from CN111 at the back side of VCR unit.

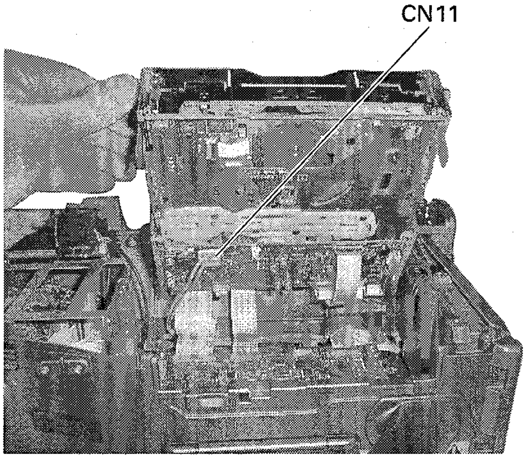


Fig.1-7-2

(4) Remove wire assembly and FFC cable front the connector CN101,CN102 and CN103. Now the VCR unit can be removed.

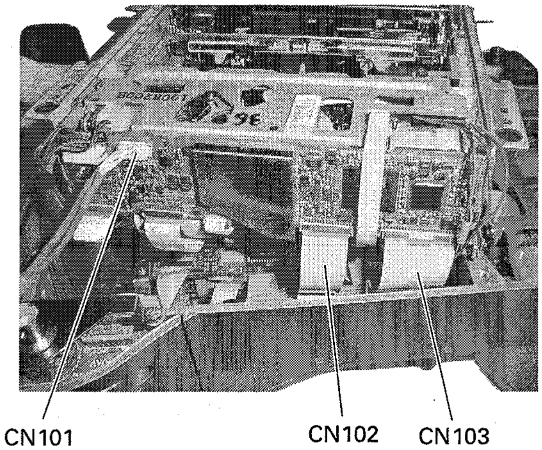


Fig. 1-7-3

(5) If it will be required to repair or maintenance at the VCR unit which is removed, refer to the section 2.

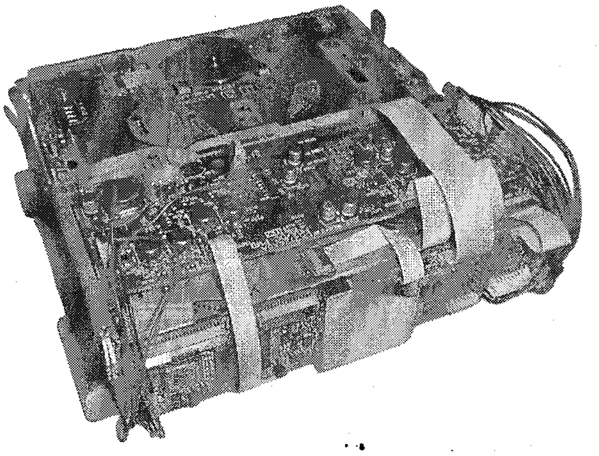


Fig.1-7-4

1.8 REMOVING THE BATTERY CASE AND IF BOARD ASSEMBLY

(1) Remove the battery case according to the instruction book page xx.
(2) Remove the 2 screw①. Then remove the cover plate (black) and non fixed plate.

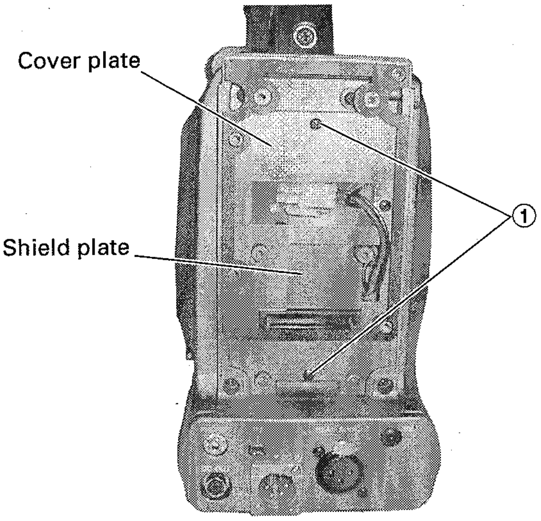


Fig.1-8-1

(3) Remove the 3 screws②. Now the IF board can be removed.

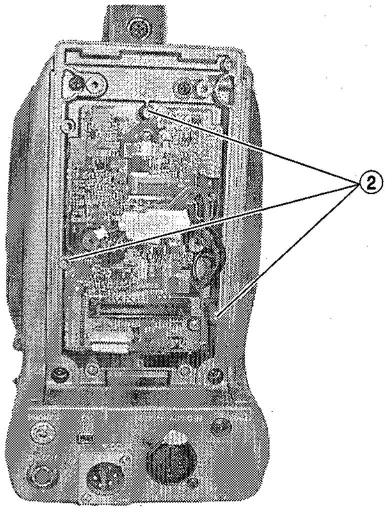


Fig.1-8-2

1.9 SERVICE MENUS

1.9.1 Modes required in servicing

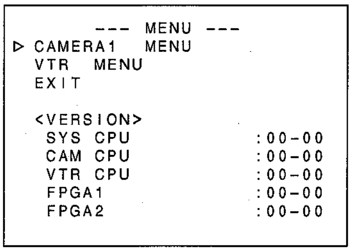
(1) While holding down the specified button(s) (FAS, LOLUX), press and hold the STATUS button for more than 1 second in order to display the first-level menu of the service menu hierarchy. The items in the first-level menu vary according to which specified button is being held at the moment the MENU button is pressed. (Characters are displayed on LCD monitor screen or View finder.)

Item	Displayed Content	When power up		
		–	Holding DISPLAY button	Holding DISPLAY button
		Activation Method		
		FAS	LOLUX	FAS+ LOLUX
CAMERA1 MENU	Camera setting, blemish detect	○	○	○
CAMERA2 MENU	Error correct ON/OFF	–	○	○
CAMERA3 MENU	AW data reset menu	–	–	○
VTR1 MENU	Repeat, FF/REW speed setting	○	○	○
VTR2 MENU	Long pause, shutdown setting	–	○	○
VTR3 MENU	Reserved	–	–	○
DIP SW	DIP SW MENU	–	○	○
HOUR METER	Hour Meter indication	–	○	○
ERROR HISTORY	Warning History	–	○	○
OTHERS	MENU SAVE etc.	–	○	○
CPU VERSION	CPU Version indication	○	–	–

Table 1-9-1 Service Menu First Tier List

1.9.2 Operation in the first-level of the service menu

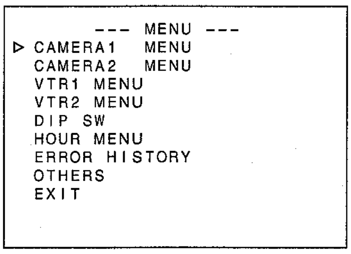
(1) While holding down the specified button(s) (FAS, LOLUX), press and hole the MENU button for more than 1 second.
(2) The first-level of the service menu is displayed.
(3) Rotate the SHUTTER dial to move the cursor (▷) on to the item to be modified.
(4) Push into the SHUTTER dial to direct the item on which the cursor (▷) is located.
- Pressing the MENU button returns to the status display.
- Can not open the service MENU while recording.



```
     --- MENU ---
▷ CAMERA1   MENU
  VTR  MENU
  EXIT

  <VERSION>
   SYS CPU             :00-00
   CAM CPU             :00-00
   VTR CPU             :00-00
   FPGA1               :00-00
   FPGA2               :00-00
```

Fig. 1-9-1 (1)

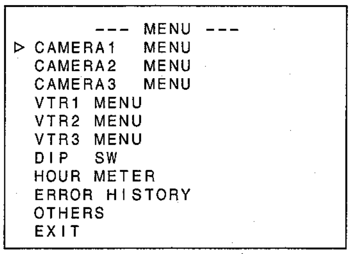
While holding down the FAS button, press and hold STATUS button for more than 1 second, this MENU screen is showed on the monitor.



```
     --- MENU ---
▷ CAMERA1   MENU
  CAMERA2   MENU
  VTR1 MENU
  VTR2 MENU
  DIP SW
  HOUR MENU
  ERROR HISTORY
  OTHERS
  EXIT
```

Fig. 1-9-1 (2)

At first, while holding down the DISPLAY button, turn ON the power switch, and then, While holding down the FAS button, press and hold STATUS button for more than 1 second, this MENU screen is showed on the monitor.



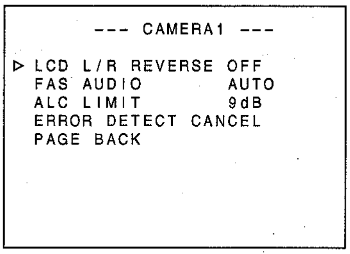
```
     --- MENU ---
▷ CAMERA1   MENU
  CAMERA2   MENU
  CAMERA3   MENU
  VTR1 MENU
  VTR2 MENU
  VTR3 MENU
  DIP  SW
  HOUR METER
  ERROR HISTORY
  OTHERS
  EXIT
```

Fig. 1-9-1 (3)

At first, while holding down the DISPLAY button, turn ON the power switch, and then, While holding down the FAS and LOLUX button, press and hold STATUS button for more than 1 second, this MENU screen is showed on the monitor.

1.9.3 CAMERA 1 menu

(1) In a service menu, place the cursor (▷) on "CAMERA 1" and push the SHUTTER dial to display the CAMERA1 menu.



```
        --- CAMERA1 ---

▷ LCD L/R REVERSE OFF
  FAS AUDIO       AUTO
  ALC LIMIT       9dB
  ERROR DETECT CANCEL
  PAGE BACK
```

Fig. 1-9-2

(2) Rotate the SHUTTER dial to move the cursor (▷) on the mode to be adjusted.
(3) Push the SHUTTER dial so that the parameter blinks.
(4) Rotate the SHUTTER dial to vary the parameter.
(5) After completing the parameter setting, push the SHUTTER dial to stop the blinking of the parameter and store the setting in memory.
(6) After completing the setting, move the cursor (▷) to "PAGE BACK" and push the SHUTTER dial to return to the display at the higher hierarchy level.

Item	Parameter	
LCD L/R REVERSE	$\boxed{\text{OFF}}$	When the face of LCD screen is turned toward the camera subject, does not invert the left and right of the LCD display. (normal image)
	ON	When the face of LCD screen is turned toward the camera subject, inverts the left and right of the LCD display. (mirror image)
FAS AUDIO	$\boxed{\text{AUTO}}$	When selected FAS mode, audio recording Level will be automatically set to AUTO mode.
	SW SET	When selected FAS mode, audio recording level will be work depending on switch setting.
ALC LIMIT	9dB	Maximum ALC value set to 9dB.
	$\boxed{\text{12dB}}$	Maximum ALC value set to 12dB.
	15dB	Maximum ALC value set to 15dB.
	18dB	Maximum ALC value set to 18dB.
ERROR DETECT CANCEL	$\boxed{\text{CANCEL}}$	Standerd setting
	EXECUTE	Push the SHUTTER dial when indicate this message to start the CCD Blemish detect function.

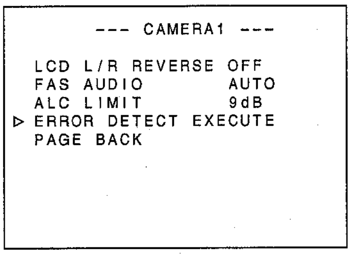
(☐ indicates the factory setting.)

Table 1-9-2

■ White blemish detection

Move the cursor at the item "ERROR DETECT CANCEL" and select "EXECUTE", then push the SHUTTER dial then CCD white blemish detect operation start automaticaly.

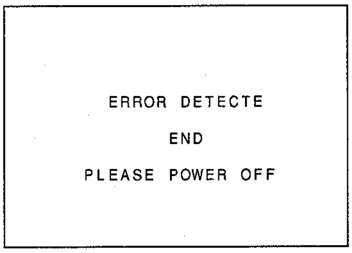
At this time, the lens is closed and the camera is in the LOLUX mode.



```
--- CAMERA1 ---

  LCD L/R REVERSE OFF
  FAS AUDIO       AUTO
  ALC LIMIT        9dB
▷ ERROR DETECT EXECUTE
  PAGE BACK
```

Fig. 1-9-3

When the white blemish detection completes, the result data is stored in the memory of CPU,
end message is showed as below, then please turn off.



```
  ERROR DETECTE

       END

PLEASE POWER OFF
```

Fig. 1-9-4

If any errors occurs during the detection operation, an error message is displayed , and return to status display.

Message	Error details	Treatment
LENS NOT CLOSED?	The lens does not close for detection.	No result is stored in the EEPROM.
COUNT OVER	The number exceeds the specified count.	Only the specified count of data is stored in the EPROM.

Table 1-9-3

■ Details on correctable white blemish

Up to 32 errors with composite video levels of 50mV or more can be corrected. However, the maximum number of errors per line is limited to 16. (However, if two errors are adjacent to each other, the correction results are inferiorto the case in which a single error due to principles of error collection occurs.)

Oblique noise may be observed on the screen during white blemish detection. This is due to the principles of error correction and is not a malfunction.

White blemish can be detected in the following area.

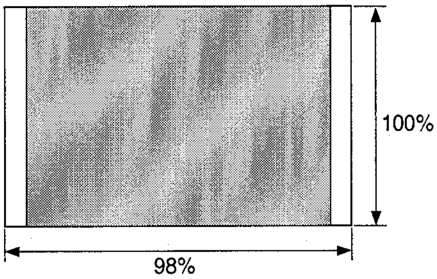
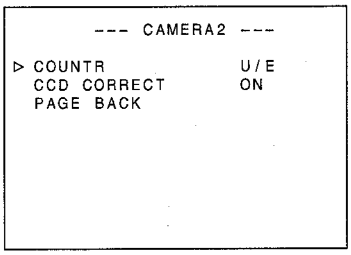


Fig 1-9-5

1.9.4 CAMERA 2 menu

(1) In a service menu, place the cursor on "CAMERA 2" and push the SHUTTER dial to display the CAMERA2 menu.



```
--- CAMERA2 ---

▷ COUNTR          U/E
  CCD CORRECT     ON
  PAGE BACK
```

Fig. 1-9-6

Operation ways are almost same as CAMERA 1 MENU, so please refer it.

Item	Parameter	
COUNTORY *1	$\boxed{\text{U/E}}$	Destination setting U: USA(NTSC), E: Europe(PAL)
	I/EC	Destination setting I: Japan(NTSC), EC: Chine(PAL)
CCD CORRECT *2	$\boxed{\text{ON}}$	Corrects the detected white blemish.
	OFF	Does not correct the detected white blemish.

(□ indicates the factory setting.)

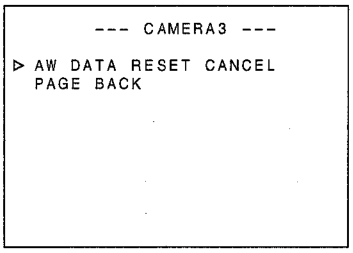
Table 1-9-4

*1: NTSC/PAL is determined by the hardware.
(alternation of resistance constant)

*2: This mode is set to on at the moment the power is turned ON.
The OFF mode is enabled only after it is set to OFF at this screen until the power is turned OFF.

1.9.5 CAMERA 3 menu

In a service menu, place the cursor on "CAMERA 3" and push the SHUTTER dial to display the CAMERA3 menu.



```
      --- CAMERA3 ---

▷ AW DATA RESET CANCEL
  PAGE BACK
```

Fig. 1-9-7

Operation ways are almost same as CAMERA 1 MENU, so please refer it.

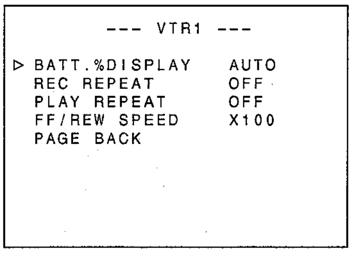
Item	Parameter	
AW DATA RESET	CANCEL	Standerd setting
	EXECUTE	Push the SHUTTER dial when indicate this message to reset the Auto White data.

(☐ indicates the factory setting.)

Table 1-9-5

1.9.6 VTR 1 menu

In a service menu, place the cursor on "VTR 1" and push the SHUTTER dial to display the VTR 1 menu.



```
        --- VTR1 ---

▷ BATT.%DISPLAY    AUTO
  REC REPEAT       OFF
  PLAY REPEAT      OFF
  FF/REW SPEED     X100
  PAGE BACK
```

Fig. 1-9-8

Operation ways are almost same as CAMERA 1 MENU, so please refer it.

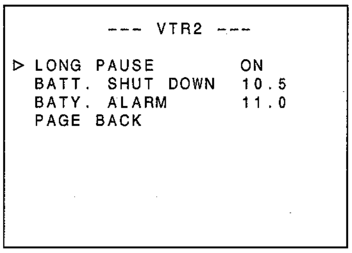
Item	Parameter	
BATT % DISPLAY	OFF	Show the Battery voltage. (Does not indicate "%" count of battery remaining.)
	AUTO	When install the Anton-Bar digital battery system, Show the battery remaining data for "%" information.
REC REPEAT	OFF	Disable repeat recording
	2	Perform repeat recording 2 times.
	12	Perform repeat recording 12 times.
	ON	Enable full repeat recording.
PLAY REPEAT	OFF	Disable repeat playback.
	ON	Enable repeat playback.
FF/REW SPEED	X50	Maximum FF/REW speed will be limited up to x50.
	X75	Maximum FF/REW speed will be limited up to x75.
	X100	Maximum FF/REW speed will be limited up to x100.
	MAX	No limitation

(☐ indicates the factory setting.)

Table 1-9-6

1.9.7 VTR 2 menu

In a service menu, place the cursor on "VTR 2" and push the SHUTTER dial to display the VTR 2 menu.



```
        --- VTR2 ---

▷ LONG PAUSE       ON
  BATT. SHUT DOWN  10.5
  BATY. ALARM      11.0
  PAGE BACK
```

Fig. 1-9-9

Operation ways are almost same as CAMERA 1 MENU, so please refer it.

Item	Parameter	
LONG PAUSE	OFF	Disable the long pause function.
	ON	Enable the long pause function.
BATT. SHUT DOWN	xx.x	Setting of the battery voltage at which shutdown should occur. (Setting in 0.1V steps between 10.5 V and 13.6V.)
BATT. ALARM	xx.x	Setting of the battery voltage at which battery alarm is indicated. (Setting in 0.1 V steps between 10.5V and 13.6V.)

(☐ indicates the factory setting.)

Table 1-9-7

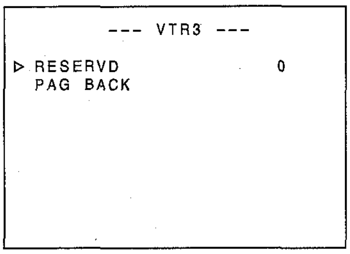
In case of the battery type which will be using, " BATT. SHUT DOWN" and "BATT. ALARM" setting should be set automatically shown as next table.

BATTERY TYPE	SHUT DOWN	ALARM
12V BATTERY	10.5V	11.5V
13.2 BATTERY	10.5V	12.5V
14.4V BATTERY	10.5V	13.5V

- When operating by DC input, then "SHUT DOWN" will be set to 10.5V, and "ALARM" will be set to 11.5V automatically, and these setting will not relate to menu setting.

1.9.8 VTR 3 menu

In a service menu, place the cursor on "VTR 3" and push the SHUTTER dial to display the VTR 3 menu.



```
--- VTR3 ---
▷ RESERVD          0
  PAG BACK
```

Fig. 1-9-10

Changing of setting is prohibited.

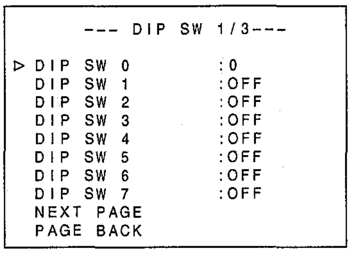
Item	Parameter
RESERVED	$\boxed{0}$ Normal setting

(☐ indicates the factory setting.)

Table 1-9-8

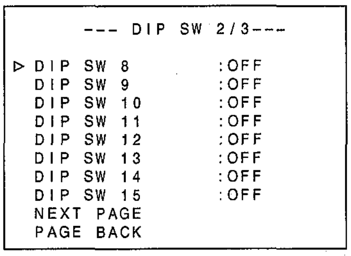
1.9.9 DIP SW menu

(1) In a service menu, place the cursor on "DIP SW " and push the SHUTTER dial to display the DIP SW menu.



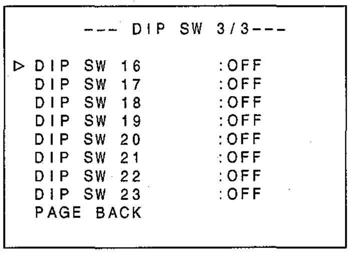
```
--- DIP SW 1/3---

▷ DIP SW 0       :0
  DIP SW 1       :OFF
  DIP SW 2       :OFF
  DIP SW 3       :OFF
  DIP SW 4       :OFF
  DIP SW 5       :OFF
  DIP SW 6       :OFF
  DIP SW 7       :OFF
  NEXT PAGE
  PAGE BACK
```

Fig.1-9-11 (1)



```
--- DIP SW 2/3---

▷ DIP SW 8       :OFF
  DIP SW 9       :OFF
  DIP SW 10      :OFF
  DIP SW 11      :OFF
  DIP SW 12      :OFF
  DIP SW 13      :OFF
  DIP SW 14      :OFF
  DIP SW 15      :OFF
  NEXT PAGE
  PAGE BACK
```

Fig. 1-9-11 (2)



```
--- DIP SW 3/3---

▷ DIP SW 16      :OFF
  DIP SW 17      :OFF
  DIP SW 18      :OFF
  DIP SW 19      :OFF
  DIP SW 20      :OFF
  DIP SW 21      :OFF
  DIP SW 22      :OFF
  DIP SW 23      :OFF
  PAGE BACK
```

Fig. 1-9-11 (3)

Operation ways are almost same as CAMERA 1 menu, so please refer it

All DIP Switches setting which are shown below will not change from factory setting ecxept repair or maintenance. And do not forget to return oroginal position after repair.

Item	Parameter	Factory setting
--- DIP SW 1/3 ---		
DIP SW 0	1 : Displays error rate monitor and CPU port information	0
DIP SW 1	ON: Disable warning detection	OFF
DIP SW 2	Change prohibited	OFF
DIP SW 3	ON: Disable DEW warning	OFF
DIP SW 4	ON: Disable Cassette Cover warning	OFF
DIP SW 5	Change prohibited	OFF
DIP SW 6	Change prohibited	OFF
DIP SW 7	Change prohibited	OFF
--- DIP SW 2/3 ---		
DIP SW 8	Change prohibited	OFF
DIP SW 9	Change prohibited	OFF
DIP SW 10	ON: Displays error rate solely for audio block on the error rate monitor screen	OFF
DIP SW 11	Change prohibited	OFF
DIP SW 12	Change prohibited	OFF
DIP SW 13	Change prohibited	OFF
DIP SW 14	Change prohibited	OFF
DIP SW 15	Change prohibited	OFF
--- DIP SW 3/3 ---		
DIP SW 16	Change prohibited	OFF
DIP SW 17	Change prohibited	OFF
DIP SW 18	Change prohibited	OFF
DIP SW 19	Change prohibited	OFF
DIP SW 20	Change prohibited	OFF
DIP SW 21	Change prohibited	OFF
DIP SW 22	Change prohibited	OFF
DIP SW 23	Change prohibited	OFF

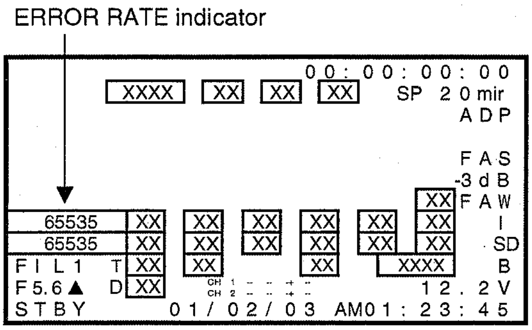
Table 1-9-9

ERROR RATE MONITOR screen

By setting "DIP SW 0" to "1", error rate and each CPU port information display screen will appair on the LCD monitor, View finder and monitor.

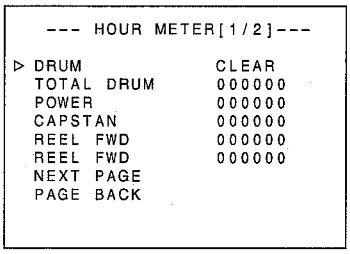
The values which are pointed by arrow are the error rate value. Error rate of CH-1 shown in upper row, and ch-2 shown in lower row, and these value are indicated total AUDIO/VIDEO error rate.

When the error rate increase , the warning message "HEAD CLEANING REQUIRED" is displayed. And this massage is indicate when the error rate value is over 4,500 (one-channel AUDIO/VIDEO total) for 7 seconds consecutively.



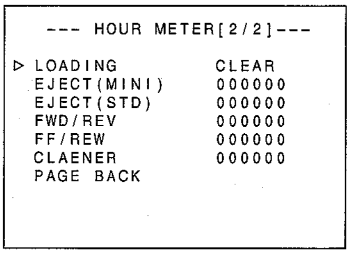
1.9.10 HOUR METER

In a service menu, place the cursor on "HOUR METER " and push the SHUTTER dial to display the HOUR METER menu.



```
--- HOUR METER[1/2]---

▷ DRUM           CLEAR
  TOTAL DRUM     000000
  POWER          000000
  CAPSTAN        000000
  REEL FWD       000000
  REEL FWD       000000
  NEXT PAGE
  PAGE BACK
```

Fig. 1-9-12 (1)



```
--- HOUR METER[2/2]---

▷ LOADING        CLEAR
  EJECT(MINI)    000000
  EJECT(STD)     000000
  FWD/REV        000000
  FF/REW         000000
  CLAENER        000000
  PAGE BACK
```

Fig.1-9-12 (2)

Operation ways are almost same as CAMERA 1 menu, so please refer it

Item	Parameter
DRUM	000000 Displays the drum hour meter(maintenance for drum)
	CLEAR Deletes the drum hour meter.
TOTAL DRUM	000000 Displays the total hour meter.
	CLEAR Deletes the total hour meter. (This does not work unless the special setting)
POWER	000000 Displays the power hour meter.
	CLEAR Deletes the power hour meter.
CAPSTAN	000000 Displays the capstan hour meter.
	CLEAR Deletes the capstan hour meter.
REEL FWD	000000 Displays the reel forward hour meter.
	CLEAR Deletes the reel forward hour meter.
REEL REV	000000 Displays the reel reverse hour meter.
	CLEAR Deletes the reel reverse hour meter.
LOADING	000000 Displays the loading count.
	CLEAR Deletes the loading count.
EJECT (MINI)	000000 Displays the eject count for mini cassette.
	CLEAR Deletes the eject count for mini cassette.
EJECT (STD)	000000 Displays the eject count for standard cassette.
	CLEAR Deletes the eject count for standard cassette.
FWD/REV	000000 Displays the forward/reverse switching count.
	CLEAR Deletes the forward/reverse switching count.
FF/REW	000000 Displays the FF/REW switching count.
	CLEAR Deletes the FF/REW switching count
CLEANER	000000 Displays the cleaner working count.
	CLEAR Deletes the Cleaner working count.

Table 1-9-10

1.9.11 ERROR HISTORY

In a service menu, place the cursor on "ERROR HISTORY " and push the SHUTTER dial to display the ERROR HISTORY menu.

```
    --- ERROR HISTORY ---

▷ (HISTORY-1)      7101
     CAP MOTOR FAILURE
  (HISTORY-2)      7101
     CAP MOTOR FAILURE
  (HISTORY-3)      7101
     CAP MOTOR FAILURE
  (HISTORY-4)      7101
     CAP MOTOR FAILURE
  CLEAR           CANCEL
  PAGE BACK
```

Fig.1-9-13

(1) Rotate the SHUTTER dial to move the cursor onto the item to show details.
(2) Push the SHUTTER dial so that the details of ERROR HISTORY is showed.
(3) Rotate the SHUTTER dial to move cursor onto the "CLEAR", push the SHUTTER dial, then ERROR HISTORY will be deleted.

Note :

ERROR HISTORY was stored from "HISTORY-1" box to "HISTORY-4"box. Latest error was stored "HISTORY-4" box, and if there will be occur another error then latest error history will be rewrite on "HISTORY-4". From "HISTORY-1" to "HISTORY-3" will not rewrite, except to "CLEAR" operation.

1.9.12 Detail indication of ERROR HISTORY

In a ERROR HISTORY display, place a cursor onto the item and push SHUTTER dial, then detail display (MECHANISM INFO) picture will be shown.

MECHANISM INFO has 2 pages.

```
  --- MECHANISM INFO 1/2--

  P.TM 000000H
  SYS MODE:PLAY(01.00)
  MSD MODE:PLAY(01.00)
            ->STOP(00.00)
  LAST MEY:PLAY(01.00)
  TAPE REM[0000]
  DEW [00] TEMP[00]
  DIAMETER TU[00]SP[00]
  NEXT PAGE
▷ PAGE BACK
```

Fig.1-9-14 (1)

```
  --- MECHANISM INFO 2/2--

  M.POSI BRK2FAST>BRK2FAST
  H.POSI INIT     >CASS IN
  CAP[OFF FWD]REL[OFF FWD]
  TU [ON] SP[OFF] DRM[OFF]
  DRV[00]CAPV[00] RELV[00]
  MCV[00]RELI[00]
  BGN[OFF]END[ON]  CAS[OFF]
  STD[OFF] HW[OFF] HW2[OFF]
  SPL[OFF]THIN[ON]
▷ PAGE BACK
```

Fig.1-9-14 (2)

Item	Content	Displayed Content
P.TM	POWER HOUR METER	Power hour meter is display.
SYS MODE	SYSCON CPU mode when error occurred PLAY (03, 00) MODE DATA Parameter	SFF/SREW parameter is speed display. (Refer to Table 1-9-11 (2) Speed parameter) Parameters of other modes are irrelevant.
MSD MODE	MSD CPU mode and target mode when error occurred PLAY (01, 00) MODE DATA Parameter	EJECT (01) : Eject ADUB (0B) : Audio Dub STOP (02) : Stop ADBP (0C) : Audio Dub Pause PLAY (03) : Play REC (13) : Rec STL (04) : Still RECP (14) : Rec Pause FF (05) : FF DVRC (15) : DV Rec REW (06) : Rew DVRP (16) : DV Rec Pause SFF (07) : Search Fwd POFF (1A) : Power Off SREW (08) : Search Rev NDEF (1F) : During initial operation SFF/SREW parameter is speed display (See Table 1-9-11 (2))
LAST KEY	Final Key code when error occurred PLAY (E7, 01) MODE DATA Parameter	Other parameters are 01: ON, 00: OFF REC (E0) : Rec SFF (EB) : Search Fwd RECP (E1) : Rec Pause SREW (EC) : Search Rev DVRP (E2) : DV Rec Pause STOP (F0) : Stop ADUB (E5) : Audio Dub EJECT (F1) : Eject ADBP (E6) : Audio Dub Pause HWUP (F2) : Housing Up PLAY (E7) : Play HWDN (F3) : Housing Down STL (E8) : Still POFF (F4) : Power Off FF (E9) : FF DVRC (F5) : DV Rec REW (EA) : Rew PON (FA) : Power on
TAPE REM	TAPE REMAIN	Displays tape remaining in minutes ([FFFF] : not detected)
DEW	DEW sensor A/D intake value	DEW display at over [48]
TEMP	Temperature sensor A/D intake value The value "49" [5°C] is threshold of detecting low temperture. The value "DC" [60°C] is the threshold of displaying "OVER HEATING" message.	Temperature is displayed in hexadecimal value. -10°C ➡ [22] 20°C ➡ [7C] 50°C ➡ [CC] - 5°C ➡ [2D] 25°C ➡ [8C] 55°C ➡ [D4] 0°C ➡ [3A] 30°C ➡ [9C] 60°C ➡ [DC] 5°C ➡ [49] 35°C ➡ [AA] "OVER HEATING" message 10°C ➡ [59] 40°C ➡ [B7] 65°C ➡ [E1] 15°C ➡ [6A] 45°C ➡ [C2] 70°C ➡ [E6]
DIAMETER	Displays wound tape diameter (Take-up, Supply)	[00]—[FF] : 0mm-82mm (Diameter) ([00] is non-detected)
M. POSI	Mechanism position and target mechanism position	[2ULD], [ULD2BRK], [BRK], [BRK2FAST], [FAST], [FAST2STP], [STP], [STP2SRH], [SRH], [SRH2], [INIT] ("2" is the meaning of "To". It means transition. Refer to section 2, Mechanism Timing Chart)
H. POSI	Housing position and target housing position	[EJECT], [EJECT2IN], [CASS IN], [RELEASE](Release the SUP reel lock.) [INIT](For the intake and eject operation, refer to section 8.2.3.)
CAP	Capstan status	[ON] : Rotate [FWD/REV]: Direction display [OFF] : Stop
REL	Reel status	[ON] : Rotate [FWD/REV]: Direction display [OFF] : Stop
DRM	Drum status	[ON] : Rotate [OFF] : Stop
DIR	Direction of tape running (Direction of target)	[FWD/REV]: Direction display
DRV	Drum control voltage	[00-FF] : 0—3V
CAPV	Capstan control voltage	[00-FF] : 0—3V
RELV	Reel control torque value	[00-FF] : 0—3A

<table>
<tr><th>Item</th><th>Content</th><th>Displayed Content</th></tr>
<tr><td rowspan="2">MCV/SPD</td><td>Loading/cassette housing control voltage (when error code 4xxx and error code 3xxx is displayed.)</td><td>[00-FF] : 0—8V (Displays mode motor control voltage during error code 3xxx)
(Displays cassette motor control voltage during error code 4xxx)</td></tr>
<tr><td>Tape speed (When the code excepting error code 4xxx and error code 3xxx is displayed.)</td><td>[00-FA] : 0—25X (FF is displayed when the speed is faster than this.)
"Tape speed" is a function to convert the hexadecimal value into a decimal value, and no speed parameter of the tape.
(ex. FAh = 250 → The speed is 25.0X.)</td></tr>
<tr><td>RELI</td><td>Reel current (Cassette housing motor current only during housing-related warning)</td><td>[00-FF] : 0—1.2A</td></tr>
<tr><td>BGN</td><td>Begin sensor</td><td>[ON] : Leader tape detected
[OFF] : Magnetic tape detected</td></tr>
<tr><td>END</td><td>End sensor</td><td>[ON] : Trailer tape detected
[OFF] : Magnetic tape detected</td></tr>
<tr><td>CAS</td><td>Cassette SW status</td><td>[ON] : No cassette
[OFF] : Cassette detected (STD/MINI)</td></tr>
<tr><td>STD</td><td>Standard cassette SW status</td><td>[ON] : Mini cassette tape inserted
[OFF] : STD cassette tape inserted</td></tr>
<tr><td>HW, HW2</td><td>Housing SW/Housing 2SW status</td><td>
<table>
<tr><th>HW SW</th><th>HW2 SW</th><th></th><th>Housing status</th></tr>
<tr><td>[ON]</td><td>[OFF]</td><td>➡</td><td>0</td></tr>
<tr><td>[OFF]</td><td>[ON]</td><td>➡</td><td>EJECT Initial position</td></tr>
<tr><td>[ON]</td><td>[ON]</td><td>➡</td><td>Cassette intake</td></tr>
<tr><td>[OFF]</td><td>[OFF]</td><td>➡</td><td>Ejecting Mini cassette</td></tr>
</table>
</td></tr>
<tr><td>SPL</td><td>SUP Lock SW status (during loading)</td><td>[ON] : Normal operation (TU side tape winding)
[OFF] : Lock release
(Tape begin detected, Supply side tape winding mode)</td></tr>
<tr><td>THIN</td><td>Thin tape detection</td><td>[ON] : THIN
[OFF] : NORMAL</td></tr>
</table>

Table 1-9-11 (1) MECHANISM INFO content

Parameter	Speed	Parameter	Speed
00	x 0	82	x 1.08
1F	x 0.03	83	x 1.11
40	x 0.10	84	x 1.12
53	x 0.20	85	x 1.16
61	x 0.30	91	x 2.00
6D	x 0.50	A9	x 5.00
7A	x 0.80	BD	x 9.00
7B	x 0.84	C0	x 10.0
7D	x 0.90	C4	x 12.0
7F	x 0.96	CC	x 15.0
80	x 1.00	D3	x 20.0
81	x 1.04		

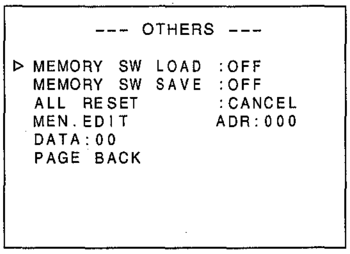
Table 1-9-11 (2) Speed parameter

Error code	Display	Content of occurrence	Method of detection	Detected signal
0201	CONDENSATION ON DRUM	DEW detected	If DEW sensor detects condensation	IC302 (MSD) –detects voltage of pin 318
3200	LOADING FAILURE	Does not load	If mechanism position does not move in loading direction within 5 seconds	IC302 (MSD) –detects output of pin 354, rotary encoder
3300	UNLOADING FAILURE	Does not unload	If mechanism position does not move in unloading direction within 5 seconds	IC302 (MSD) –detects output of pin 354, rotary encoder
	No display	Does not intake	If intake is not completed within 5 seconds (Ejects without warning)	IC302 (MSD) –pin 84, CASSETTE SW is not detected within 5 seconds
4100	CASSETTE EJECT FAILURE	Does not eject	If eject is not completed within 5 seconds	IC302 (MSD) –pin 26, HOUSING SW is not detected within 5 seconds
5605	DEFECTIVE TAPE	Tape abnormality during intake	If begin or end side sensor is ON after intake	IC302 (MSD) –pin 278, START sensor and pin 297, END sensor are both detected
5606	DEFECTIVE TAPE	Tape tear during unloading	If reel FG is excessive during unloading	IC302 (MSD) –pin 75, TU REEL FG is detected
5607	DEFECTIVE TAPE	Tape tear during loading	If reel FG is insufficient during loading	IC302 (MSD) –pin 75, TU REEL FG is detected
5608	DEFECTIVE TAPE	Tape tear on the loading side	If only supply side reel does not rotate during FWD/REV	IC302 (MSD) –pin 72, SUP REEL FG is not detected
5609	DEFECTIVE TAPE	Tape tear during slack takeup	If tape slack takeup is not completed within 10 seconds	IC302 (MSD) –pin 75, TU REEL FG and pin 72, SUP REEL FG are both detected
5702	TAPE END DET. ERROR	End sensor abnormality	If trailer tape sending is not completed within 3 seconds	IC302 (MSD) –pin 297, END sensor is detected for over 3 seconds
5802	TAPE BEGIN DET. ERROR	Begin sensor abnormality	If leader tape sending is not completed within 3 seconds	IC302 (MSD) –pin 278, START sensor is detected for over 3 seconds
7001	DRUM MOTOR FAILURE	Drum motor does not rotate	If drum motor does not rotate for over 4 seconds	IC302 (MSD) –pin 55, DRUM FG is not detected for over 4 seconds
7101	CAP MOTOR FAILURE	Capstan motor does not rotate	If capstan motor does not rotate for over 2 seconds	IC302 (MSD) –pin 56, CAP FG is not detected for over 2 seconds
7202	SUPPLY REEL FAILURE	SUP reel does not rotate	If SUP reel does not rotate for over 3 seconds	IC302 (MSD) –pin 72, SUP REEL FG is not detected for over 3 seconds
7203	SUPPLY REEL FAILURE	SUP side tape slack	If only SUP reel does not rotate during REV	IC302 (MSD) –pin 72, SUP REEL FG is not detected
7302	TAKE UP REEL FAILURE	TU reel does not rotate	If TU reel does not rotate for over 3 seconds	IC302 (MSD) –pin 75, TU REEL FG is not detected for over 3 seconds
7303	TAKE UP REEL FAILURE	TU side tape slack	If only TU reel does not rotate during FWD	IC302 (MSD) –pin 75, TU REEL FG is not detected
7305	TAKE UP REEL FAILURE	Tape slack during unloading	If TU reel FG is insufficient during unloading	IC302 (MSD) –pin 75, TU REEL sensor is detected
7401	REEL MOTOR FAILURE	Reel motor does not rotate	If reel motor does not rotate for more than 4 seconds during reel drive mode	IC302 (MSD) –pin 91, REEL FG is not detected for over 4 seconds

Table 1-9-11 (3) Error Code Contents

1.9.13 OTHERS menu

In a service menu, place the cursor on "OTHERS" and push the SHUTTER dial to display the OTHERS menu.



```
--- OTHERS ---

▷ MEMORY SW LOAD  :OFF
  MEMORY SW SAVE  :OFF
  ALL RESET       :CANCEL
  MEN.EDIT        ADR:000
  DATA:00
  PAGE BACK
```

Fig. 1-9-15

Operation ways are almost same as CAMERA1 MENU, so please refer it.

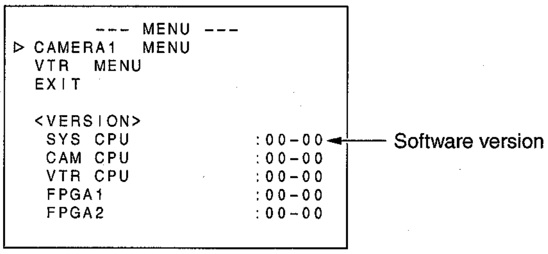
Item	Parameter	
MEMORY SW LOAD	OFF	Standard setting
	START	Menu SW information is loaded from a remote domain.
MEMORY SW SAVE	OFF	Standard setting
	START	Menu SW information is saved to a remote domain.
ALL RESET	CANCEL	Standard setting
	EXECUTE	Resets all EEP-ROM data to default settings except adjustment data, hour meter data, and IEEE1394 ID data. Default settings at time of shipment differ by market region. I: for Japan, U: for USA, E: for EU, EC: for China
MEM.EDIT	Contents of the EEP-ROM can be edited directly ADR: Address (0-03FF) display DATA: Display of data embedded in address shown by ADR **Operation procedure** 1. Rotate the SHUTTER dial to move the cursor to MEM.EDIT. 2. Push the SHUTTER dial to blink the "ADR" parameter. 3. Then rotate the SHUTTER dial to adjust the specified value. 4. Next, push the SHUTTER dial to blink the DATA parameter. 5. Rotate the SHUTTER dial to adjust the specified value. 6. Finaly, push the SHUTTER dial to store the data. **(NOTE)** Data that is crucial for the system is stored in the EEP-ROM, and making unadvised changes to it can cause the unit to stop operating correctly. Please do not use anything other than the IEEE1394 ID setting.	

(☐ is default setting when shipped from factory)

Table 1-9-12 OTHERS Menu Setting Items List

1.9.14 CPU version menu

Displays version of SYSCON CPU, Camera CPU , VTR CPU, FPGA1 and FPGA2.



```
        --- MENU ---
▷ CAMERA1   MENU
  VTR   MENU
  EXIT

  <VERSION>
   SYS  CPU              :00-00
   CAM  CPU              :00-00
   VTR  CPU              :00-00
   FPGA1                 :00-00
   FPGA2                 :00-00
```

Fig. 1-9-16 CPU Version

1.9.15 EEP-ROM

(1) EEP-ROM and maintenance data

GY-DV5000 is equipped with two EEP-ROMS for the purpose of data maintenance, and their contents are as per the following list. When the circuit board or EEP-ROM is replaced, there will be no data in the EEP-ROM. When the unit is powered up, and the SYSCON CPU recognizes that there is no data in the EEP-ROM, it automatically writes initial data into the EEP-ROM to initialize it. The memory data shown in Table 1-9-12 will all be reset back to default settings, so it will be necessary to perform necessary adjustments and settings again.

EEP-ROM	Board name	Memory data content
IC301	DV/CPU board (MSD CPU)	• Adjusted data (DVC section) • IEEE1394 ID data • HOUR METER data
IC811	DBCP board	• Adjusted data • User menu and Service menu settings data • ERROR HISTORY

Table 1-9-13 EEP-ROM Memory Data Content

(2) IEEE1394 ID setting method

IEEE1394 equipped units have an ID, as defined by the IEEE1394 standard, stored in the internal EEP-ROM (IC 301. At the time of production, the ID numbers allotted to each individual unit are written into the unit's memory, and a sticker bearing the ID is affixed inside the unit. When the EEP-ROM or DV/CPU circuit board is replaced, the ID needs to be set again.

Procedure for setting IEEE1394 ID

The ID is an 8 digit, hexadecimal code, with 1 high-end Byte being the model code, and 3 low-end Bytes being unique to the unit. The model code is automatically initialized, so only the lower 3 Bytes of unique code need to be set manually. Go from Service Menu → OTHERS Menu → MEM. EDIT (Memory Edit) to select the address in the ID data section and make the setting directly. The 3 low-end Byte address is as follows. Make the setting while confirming the ID printed on the label (ID: 43xxxxxx) pasted on the inside of the GY-DV5000 (See Fig. 1-9-17).

IEEE1394 ID data :	43	xx	xx	xx	(Indicates on the label of GY-DV5000 inside.)
		⇩	⇩	⇩	
MEMORY Address number		"391"	"392"	"393"	(Each 1 Byte ID data are stored for every one Memory Address number.)

Setting procedure

1. (1) Rotate the SHUTTER dial to move the cursor to MEM. EDIT.
2. (2) Push the SHUTTER dial to make the ADR parameter blink.
3. (3) Select ADR parameter "391".
4. (4) Push the SHUTTER dial to make the DATA parameter blink.
5. (5) Rotate the SHUTTER dial to set the ID data for ADR = "391".
6. (6) Push the SHUTTER dial to confirm the DATA parameter.
7. (7) In the same manner, select ADR parameter "392" and "393" to set the ID data.

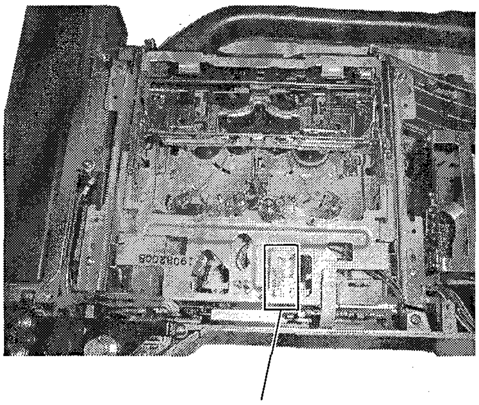
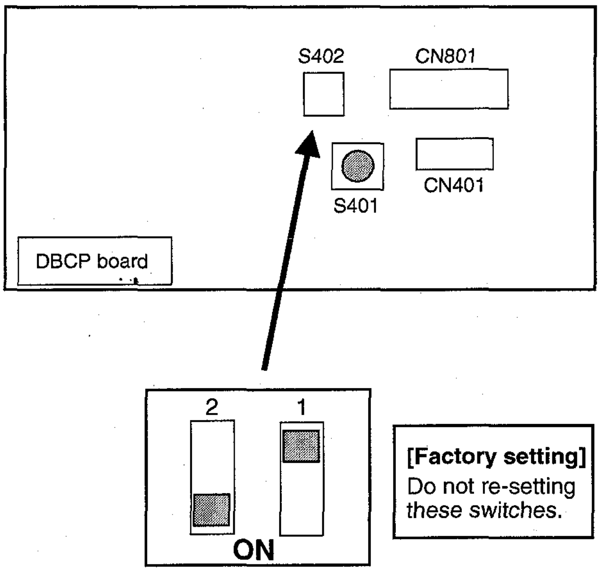


Fig. 1-9-17 ID Label Attachment Position

1.10 SWITCHES ON DBCP BOARD

S401,S402 and CN401 are prepared to use for factory production line, usually never use for adjustment after repair or maintenance, so please do not touch their and keeping on the factory setting .

1.10.1 Board location



[Factory setting]
Do not re-setting these switches.

CAUTION

If there will be changed any setting except factory position, it will occur any problem for FPGA (Field Programable Gate Array) on DBCP board (IC401,301), cause of the Flash ROM IC which is stored the program for FPGA will be damaged or erased.

If the both small switches S402- 1and 2 set to down ward (ON position), and push S401tact switch, then Flash ROM will be erased. Be careful and never do it.

1.11 HOW TO TAKE OUT THE CASSETTE TAPE IN CASE OF EMERGENCY

An emergency system on this unit enables the cassette tape to be taken out manually.
When a cassette tape is stuck, take it out as described below.

(1) In order to turn the mode motor, turn the gear Ⓐ (red color) in the direction of the arrow. While turning the gear also push it in to drive loading/unloading.

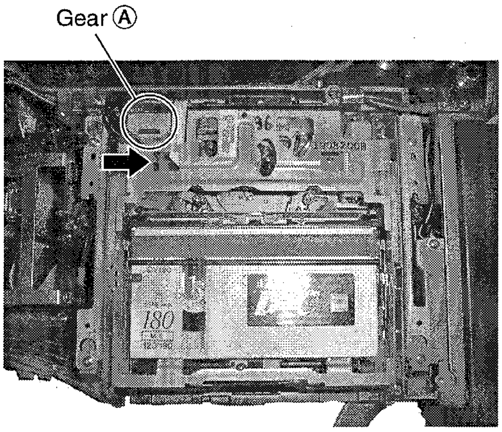


Fig. 1-11-1

(2) To wind the tape, when the tape is loosened a little, put a screw driver in the emergency gear Ⓑ, which drives the reel. (The drive direction does not matter.)

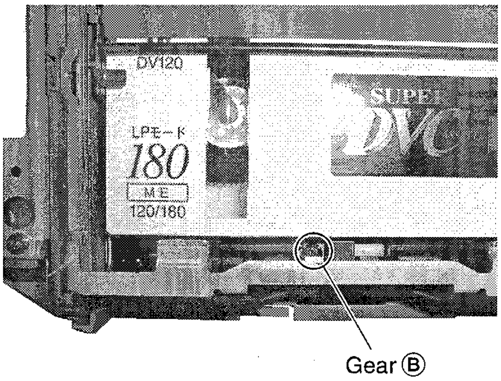


Fig. 1-11-2

(3) Repeat steps (1) and (2) alternately and little by little until the tape is wound completely into the cassette.

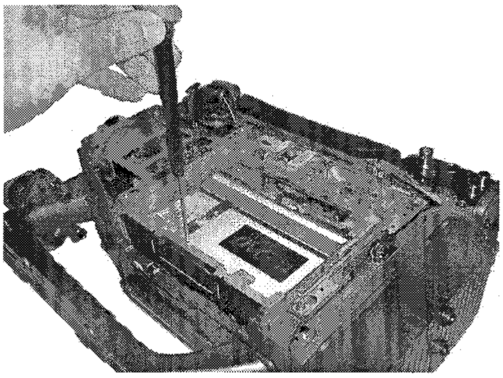


Fig. 1-11-3

(4) Confirm that the tape is completely wound. Then, turn the gear Ⓒ (red color) in the direction of the arrow to eject the cassette housing. Take the cassette out when it comes out of the loading slot.

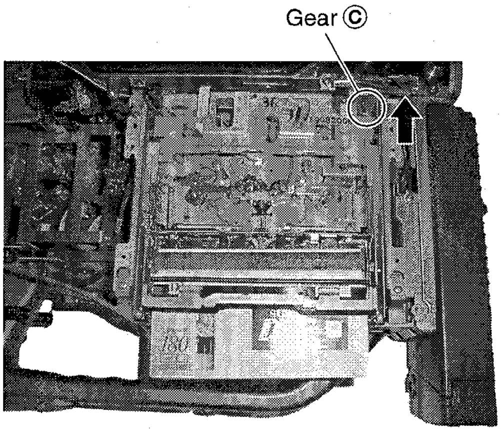


Fig. 1-11-4

SECTION 2
MECHANICAL ADJUSTMENTS

2.1 BEFORE ADJUSTMENTS

2.1.1 Precautions

1) Be sure to apply a screw securing torque when attaching a part.
   The securing torque should be 0.14 N/m (1.4 kgf/cm) unless otherwise specified.
2) Always unplug the power cord of the set before attaching, removing or soldering a part.
3) When unplugging a connector, do not pull the wire but grasp the connector body.
4) Do not make an adjustment or rotate a potentiometer blindly while the source of trouble is not identified.
5) Before adjusting electrical circuitry, be sure to wait for more than 10 minutes after turning the power on.

2.1.2 Measuring instruments required for adjustments

Instrument	Condition
Oscilloscope	Calibrated instrument with measuring bandwidth of 100 MHz or more.

Table 2-1-1

2.1.3 Equipment required for adjustments

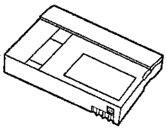
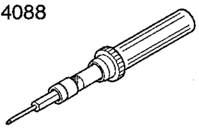
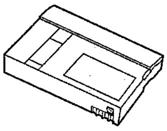
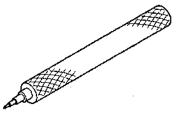
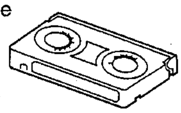
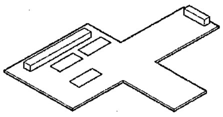
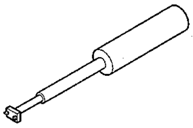
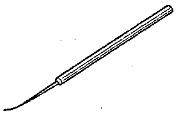
1 Alignment tape	5 Torque screwdriver
MC-1 (NTSC) MC-2 (PAL) 	YTU94088  YTU94088-003 Replaceable bit (long type)
2 DV tape	6 Slit washer attaching tool
For use in self-recording/playback. (60 ME) (270 ME) 	YTU94121A 
3 Cassette torque meter	7 REWRITE board (Connector board)
YTU94150A (or YTU94151A) for FWD mode KLJ0312 for REV mode 	CK453800B 
4 Guide screwdriver	8 Chip IC replacement tool
YTU94085 	PTS40844-2 

Table 2-1-2

2.2 DISASSEMBLY/ASSEMBLY OF THE MECHANISM

2.2.1 Mechanism position for disassembly/assembly

The mechanism should basically be disassembled and assembled in the unloading end (No Cassette) position.
However, other mechanism position is sometimes required for disassembly or assembly. In such a case, the required position is specified every time in the descriptions in 2.6, "Replacement of major parts".

2.2.2 Mode transition

To change the mechanism mode manually, rotate the emergency gear of the mode motor assembly shown in Fig. 2.2.1 as below.
The mechanism mode can be changed by applying 3 V DC to the mode motor electrodes.
The MINI and STD reel positions can be changed over by manually sliding the reel change plate.

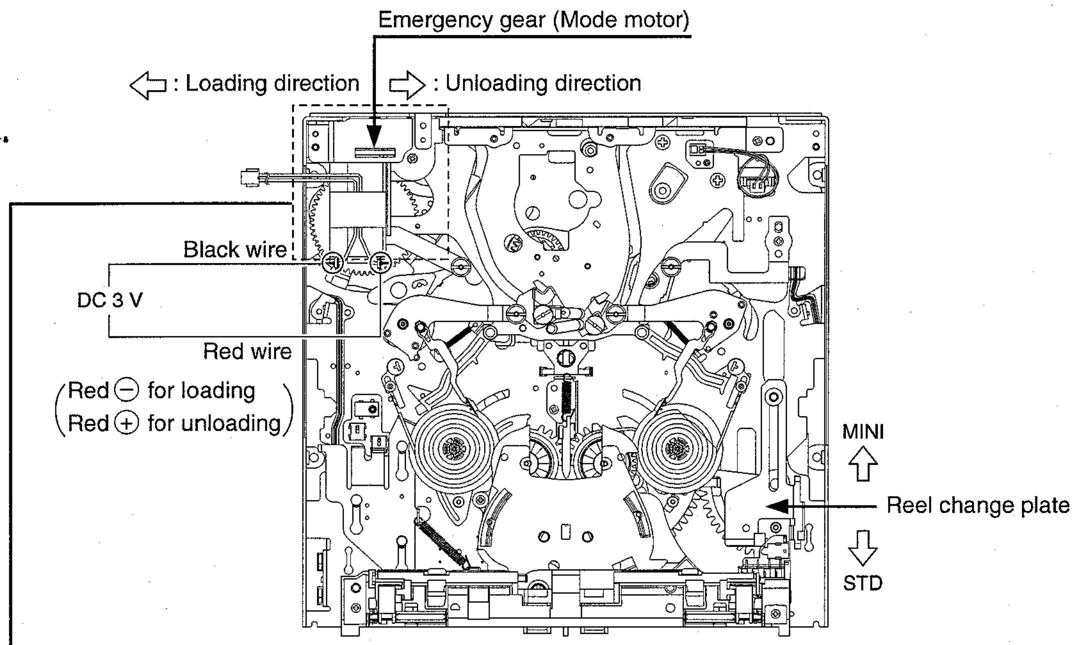

Emergency gear (Mode motor)
⇦ : Loading direction
⇨ : Unloading direction
Black wire
DC 3 V
Red wire
(Red ⊖ for loading
Red ⊕ for unloading)
MINI
Reel change plate
STD

Fig. 2.2.1

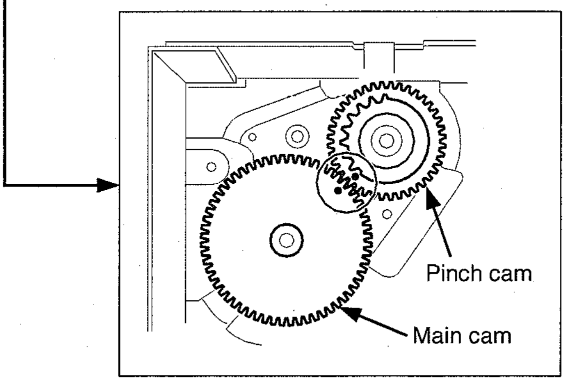

Pinch cam
Main cam

Fig. 2.2.2

Important:
When turn the Emergency gear (Mode) to Unloading direction by hand until the hole of the Main cam and the hole of the pinch cam in a straitline connecting. (refer to Fig.2.2.2)
Please do not turn the Emergency gear (Mode) more than the above.

2.3 MECHANISM TIMING CHART

See Table 2-3-1 below.

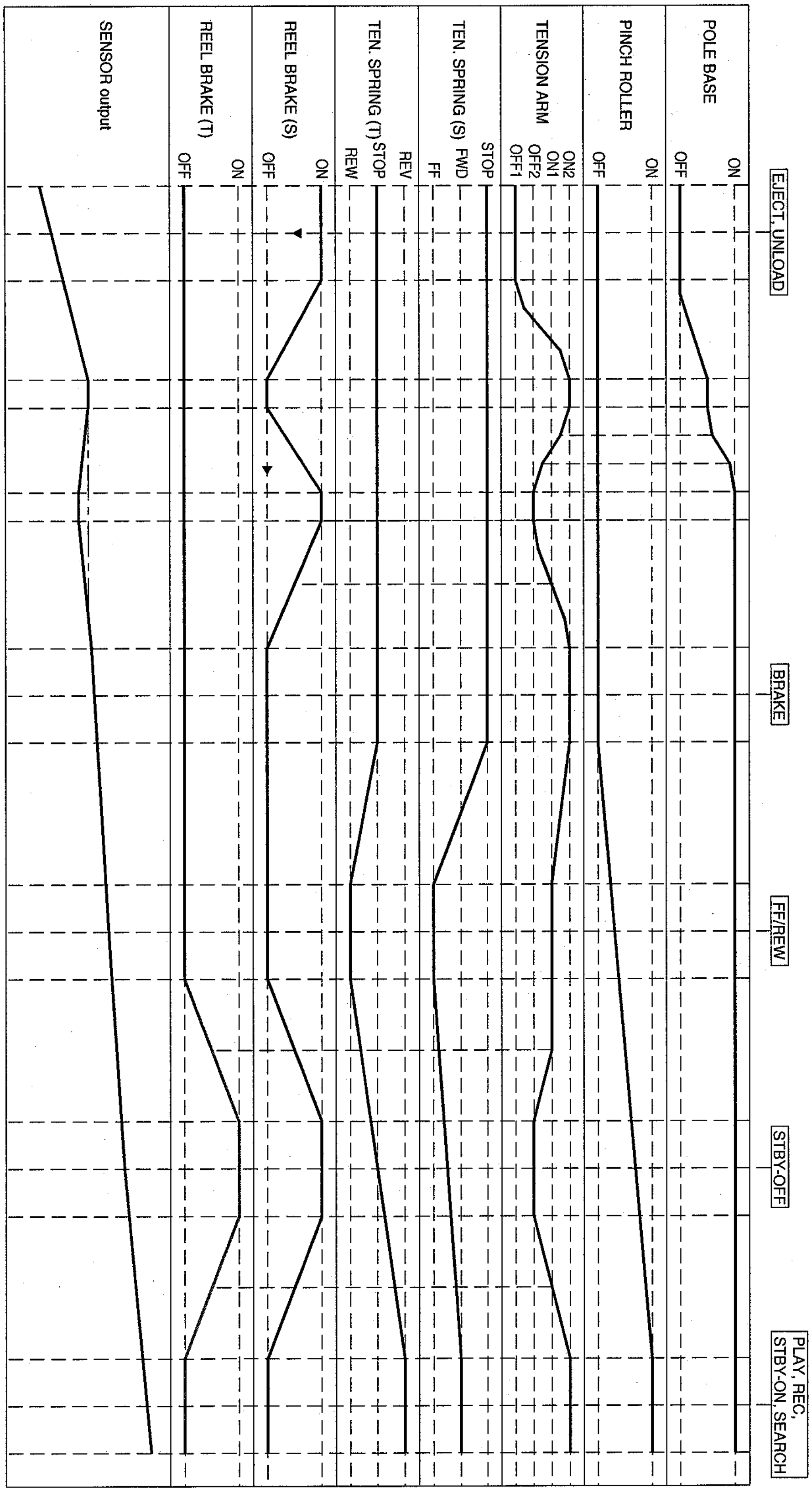


Table 2-3-1

2.4 MAINTENANCE AND INSPECTION OF MAJOR PARTS

Periodical inspection and maintenance are requisite to maintain the initial performance and reliability of the product. Table 2-4-1 (Maintenance & Inspection List) has been compiled assuming standard operating conditions, and the specifications in the table are greatly variable depending on the actual operating environment and conditions. Remember that, if the maintenance and inspection are not enforced properly, the operating hours of the product will not only reduce considerably but other unfavorable influences may produce.

Rubber parts may deform or degrade after long period of storage even if they are not used in this period.

The service life of the drum is variable depending on the tape used and operating environment.

2.4.1 Layout of Major Parts

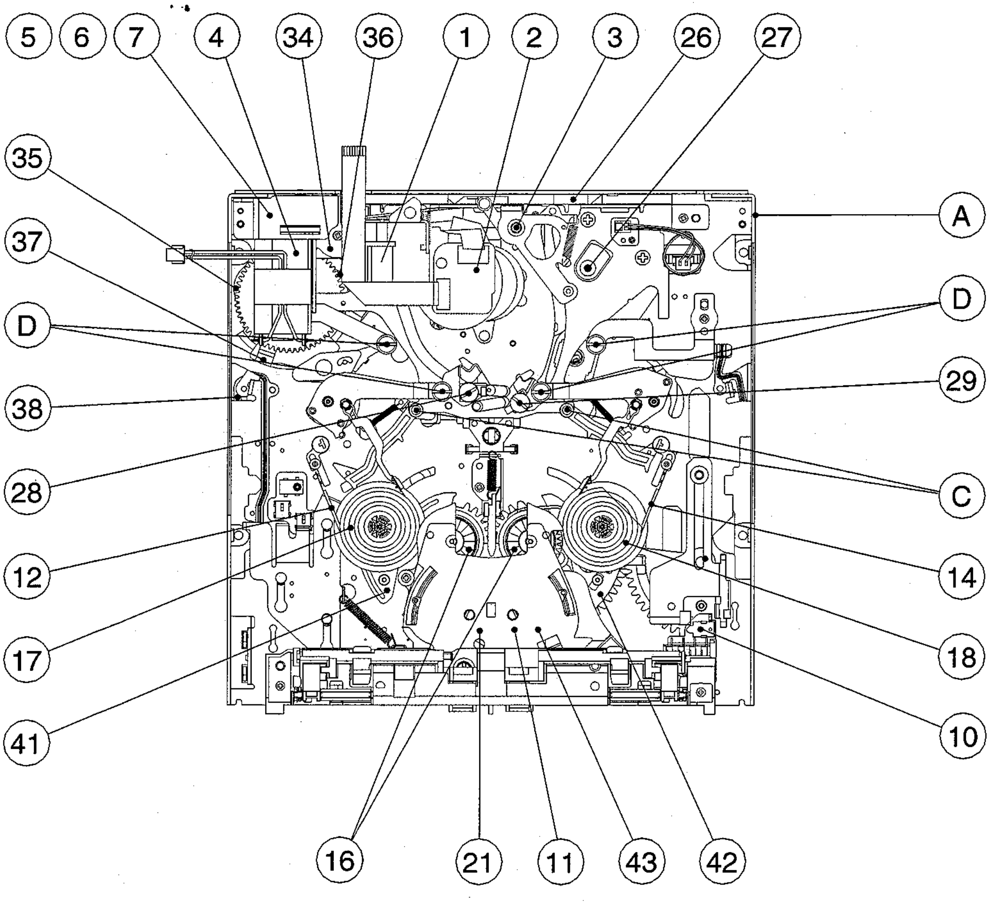


Fig. 2.4.1

2.4.2 Maintenance/inspection table

1) Replace the whole mechanism assembly in the 6000H maintenance.
2) The SUP/TU tension arm assemblies, sub-deck assembly (ENT. G. roller section) and EGR ARM assembly have undergone perpendicularity management after being assembled. If any of the above assemblies needs replacement, the whole mechanism assembly should be replaced.

	Part Name	Symbol No.	Operating Hours (DRUM Hour Meter)												Ref. Section
			500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	
1	㉘ SUP P. BASE ASSEMBLY	M3 66	★	○★	★	●	★	○★	★	●	★	○★	★	—	2.6.17
2	㉙ TU P. BASE ASSEMBLY	M3 67	★	○★	★	●	★	○★	★	●	★	○★	★	—	2.6.17
3	Ⓓ GUIDE ROLLER	M3 30	★	○★	★	●	★	○★	★	●	★	○★	★	—	2.4.1
4	Ⓓ COLLER	M3 31	★	○★	★	●	★	○★	★	●	★	○★	★	—	2.4.1
5	Ⓓ FRANGE	M3 32	★	○★	★	●	★	○★	★	●	★	○★	★	—	2.4.1
6	③ PINCH R.ARM ASSEMBLY	M3 4	★	○★	★	●	★	○★	★	●	★	○★	★	—	2.6.3
7	② DRUM ASSEMBLY	M3 80	★	★	★	●	★	★	★	●	★	★	★	—	2.6.2
8	㉗ CAPSTAN SHAFT	M3 64	★	★	★	★	★	★	★	★	★	★	★	—	
9	㉗ CAPSTAN MOTOR	M3 64	—	—	—	—	—	—	—	—	—	○	—	—	2.6.16
10	㉑ REEL MOTOR	M3 24	—	—	—	—	—	—	—	—	—	○	—	—	2.6.13
11	⑩ M.I.C. terminal	M3 51	★	★	★	★	★	★	★	★	★	★	★	—	
12	⑩ M.I.C. CONNECTOR ㊸ FPC 1 ASSEMBLY ⑪ IDLER COVER	M3 51 M3 49 M3 52	— ★ —	— ★ —	— ★ —	— ★ —	— ★ —	— ★ —	— ★ —	— ★ —	— ★ —	— ★ —	— ★ —	— — —	2.6.6 2.6.25 2.6.7
13	Ⓒ CASSETTE GUIDE PIN		★	★	★	★	★	★	★	★	★	★	★	—	2.4.1
15	④ MODE MOTOR ASSEMBLY	M3 47	—	—	—	—	—	—	—	—	—	—	—	—	2.6.4
16	㉟ MAIN CAM	M3 12	—	—	—	—	—	—	—	—	—	—	—	—	2.6.20
17	⑥ GEAR 1	M3 44	—	—	—	—	—	—	—	—	—	—	—	—	2.6.4
18	⑦ GEAR 2	M3 45	—	—	—	—	—	—	—	—	—	—	—	—	2.6.4
19	⑤ WORM WHEEL	M3 46	—	—	—	—	—	—	—	—	—	—	—	—	2.6.4
20	㉞ PINCH CAM GEAR	M3 13	—	—	—	—	—	—	—	—	—	—	—	—	2.6.20
21	㉖ PINCH PLATE	M3 17	—	—	—	—	—	—	—	—	—	—	—	—	2.6.16
22	㊳ CTL. PLATE	M3 9	—	—	—	—	—	—	—	—	—	—	—	—	2.6.22
23	㊲ CTL. ARM ASSEMBLY	M3 56	—	—	—	—	—	—	—	—	—	—	—	—	2.6.21
24	㊱ ARM GEAR	M3 11	—	—	—	—	—	—	—	—	—	—	—	—	2.6.21
25	㊶ SUP REEL PLATE ASSEMBLY	M3 54	—	—	—	—	—	—	—	—	—	—	—	—	2.6.24
26	㊷ TU REEL PLATE ASSEMBLY	M3 55	—	—	—	—	—	—	—	—	—	—	—	—	2.6.24
27	⑰ SUP REEL DISK ASSEMBLY	M3 35	—	○	—	●△	—	○	—	●△	—	○	—	—	2.6.10
28	⑱ TU REEL DISK ASSEMBLY	M3 36	—	○	—	●△	—	○	—	●△	—	○	—	—	2.6.10
29	⑯ CONN. GEAR ASSEMBLY	M3 37	—	○	—	●△	—	○	—	●△	—	○	—	—	2.6.10
30	⑫ SUP TENSION BAND ASSEMBLY	M3 38	—	○	—	●	—	○	—	●	—	○	—	—	2.6.8
31	⑭ TU TENSION BAND ASSEMBLY	M3 39	—	○	—	●	—	○	—	●	—	○	—	—	2.6.9
32	⑪ IDLER ARM ASSEMBLY	M3 40	—	○	—	●	○	○	—	●	—	○	—	—	2.6.7
33	① HEAD CLEANAER	M3 5A	○	●	○	●	—	●	○	●	○	●	○	—	2.6.2
34	Ⓑ CASSETTE HOUSING ASSEMBLY	M3 90	—	—	—	—	—	—	—	—	—	—	—	—	2.6.1
35	Ⓐ MECHANISM ASSEMBLY	M3 1	—	—	—	—		—	—	—	—	—	—	●	

★: Clean with ethyl alcohol. ○: Check and replace if required. ●: Replace. △: Oil the shaft.
After replacing a part, apply lubricant to the required points.

Table 2-4-1

2.4.3 Cleaning

The tape transport system should be cleaned periodically. Be sure to clean the tape transport system upon receipt of a set for servicing, etc. To clean use a good quality fine-textured cloth moistened with ethyl alcohol.

1) When the video head is stained, the playback output level decreases and a read error will not be able to be corrected by the error correction. If this occurs, block noise appear on the monitor, the audio will not be output, and the video output will eventually be lost when the video head becomes extremely dirty. To clean the drum, while applying cleaning cloth (service part No.: KSMM-01) or high quality paper gently to the upper drum, rotate the upper drum in the normal (counterclockwise) rotation direction.
The dirt deposited on the video head can be removed by playing a cleaning tape.

CAUTION

Do not move the cleaning paper while applying it to the video head. Otherwise, the video head may be damaged.

2) The lower drum tends to attract dirt on the leader section and the linearity cannot be guaranteed when the lower drum becomes extremely dirty. Particularly, the tape inlet and output sections gather dirt easily, causing symptoms such as dropout of the reproduced FM signal, deterioration of video quality and lack of audio output. In order to clean the leader section, rub a a cotton swab gently along its edge.

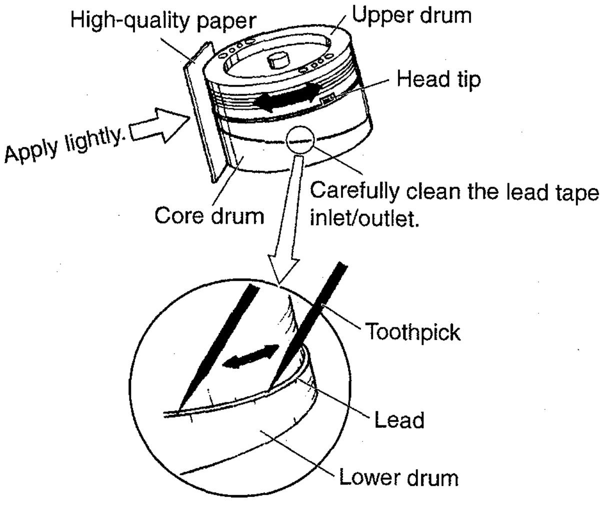


Fig. 2.4.2

3) Stain of the tape transport system leads to tape damage. When magnetic dust or dirt penetrates inside the rollers, a rotation malfunction may affect the video. Clean the tape transport parts carefully using a cleaning cloth or cotton swab moistened with ethyl alcohol.

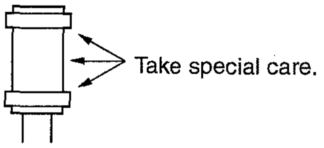


Fig. 2.4.3

2.4.4 Oiling and Greasing

Table 2-4-2 shows the oil and greases used with the set.

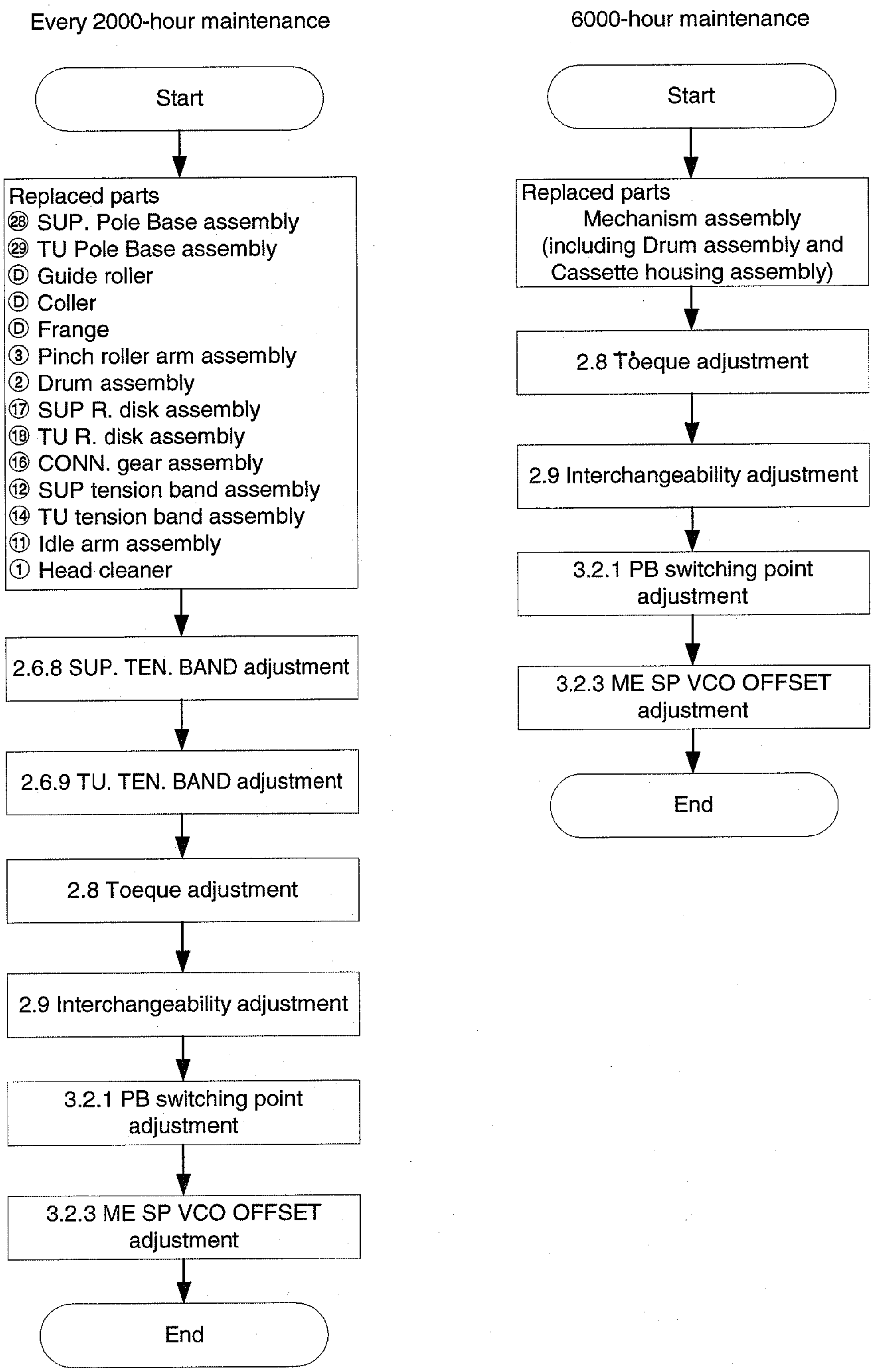
Classification	Name	Part No.
Oil	Cosmo Hydro HV100	YTU94027
Grease	Maltemp SH-P	KYODO-SH-P
	Hanal	RX-410R

Table 2-4-2

1) Oiling should be performed periodically. Oil the shafts by referring to the maintenance table.
2) After replacing a part, grease the required points. For the parts to be greased see the exploded diagram in chapter 5, "DISASSEMBLY DRAWINGS AND PARTS LIST".
3) As Hanal separates over time, be sure to mix it (shake) well before use.
4) Take care not to leave grease or oil on the tape transport parts which come into contact with the tape or on the brake pads.
5) Take care not to apply too much oil or grease. The standard oiling quantity is one drop and the standard greasing quantity is the quantity with which the grease does not overflow.

2.5 PERIODICAL MAINTENANCE

Perform maintenance at the correct times in accordance with the maintenance table.
Fig. 2-5-1 shows the flow chart of periodical maintenance procedures at different operating hours.



Every 2000-hour maintenance

6000-hour maintenance

Start
Replaced parts
㉘ SUP. Pole Base assembly
㉙ TU Pole Base assembly
Ⓓ Guide roller
Ⓓ Coller
Ⓓ Frange
③ Pinch roller arm assembly
② Drum assembly
⑰ SUP R. disk assembly
⑱ TU R. disk assembly
⑯ CONN. gear assembly
⑫ SUP tension band assembly
⑭ TU tension band assembly
⑪ Idle arm assembly
① Head cleaner
2.6.8 SUP. TEN. BAND adjustment
2.6.9 TU. TEN. BAND adjustment
2.8 Toeque adjustment
2.9 Interchangeability adjustment
3.2.1 PB switching point adjustment
3.2.3 ME SP VCO OFFSET adjustment
End
Start
Replaced parts
Mechanism assembly (including Drum assembly and Cassette housing assembly)
2.8 Toeque adjustment
2.9 Interchangeability adjustment
3.2.1 PB switching point adjustment
3.2.3 ME SP VCO OFFSET adjustment
End

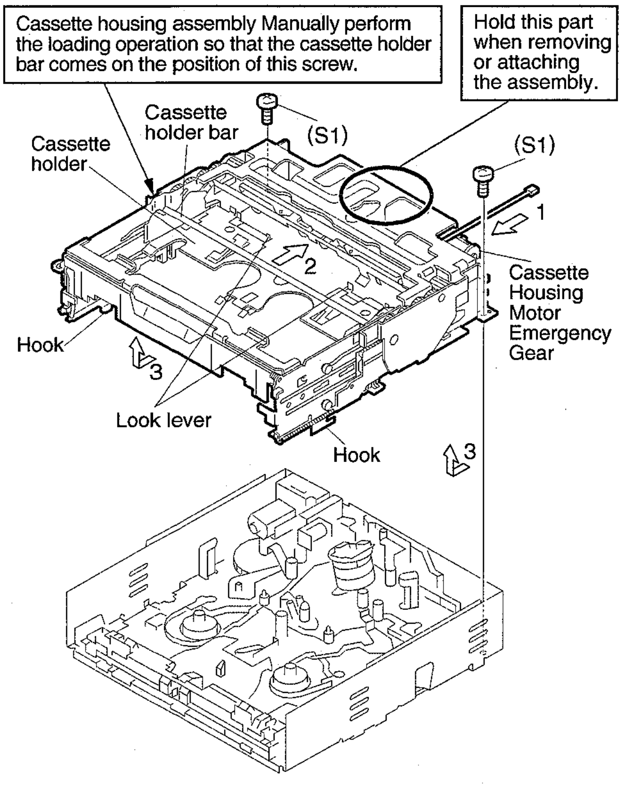
Fig. 2.5.1

No.	Item	Ref. Illustration	Procedure

2.6 REPLACEMENT OF MAJOR PARTS

- The disassembly procedures shown in oder of disassembly. To remove the part, it is necessary to have completed all the stages before it.
- Always use a torque driver and the specified securing torque to tighten screws.
- Position the mechanism to the unloading end (No Cassette) mode before disassembly or assembly unless otherwise specified.

1 **Ⓑ Cassette housing assembly**



Cassette housing assembly Manually perform the loading operation so that the cassette holder bar comes on the position of this screw.

Hold this part when removing or attaching the assembly.

Fig. 2.6.1

<Disassembly>

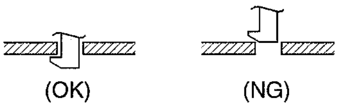
1) Turn the cassette housing motor emergency gear in the direction of the arrow, while pushing the lock lever in the direction of arrow 2, then move the cassette holder so that the cassette holder bar comes in the position shown in the illustration.
2) Remove two screws (S1), slide the cassette housing toward the front and remove it by releasing the lock on the Hook function as shown by arrow 3.

<Assembly>

1) Reverse the disassembly procedure.
2) Screws (S1) should be tightened using a securing torque of 0.2 N/m (2 kgf/cm).

Note:

Be sure to attach the cassette housing in the same position as when it was removed.



Hook function of the Cassette hausing.

2 **① Head cleaner assembly/ ② Drum assembly**

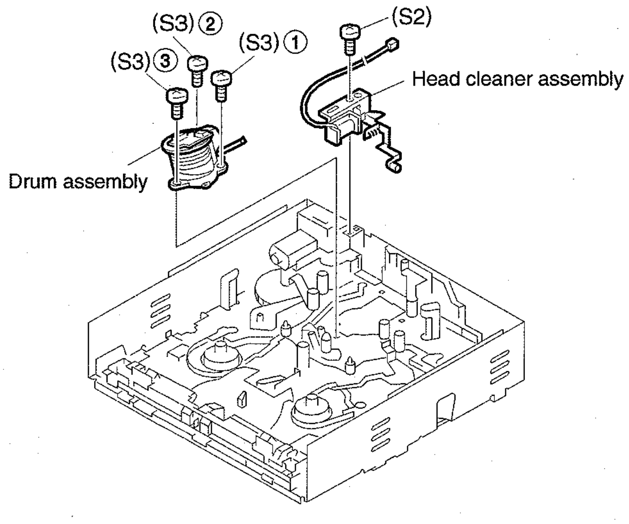


Fig. 2.6.2

<Disassembly>

Head cleaner assembly:

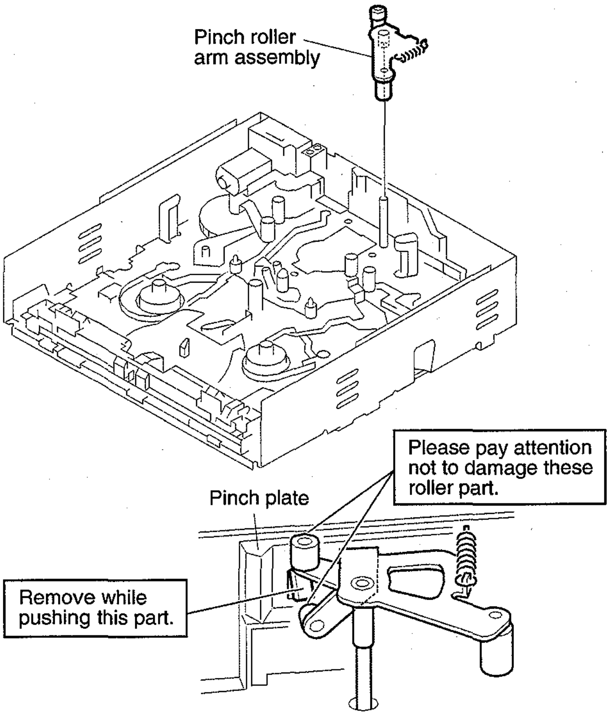
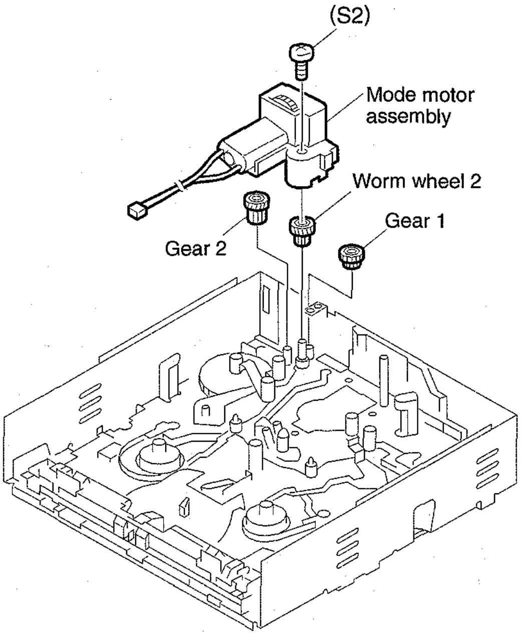
1) Remove the screw (S2) and remove the head cleaner assembly.

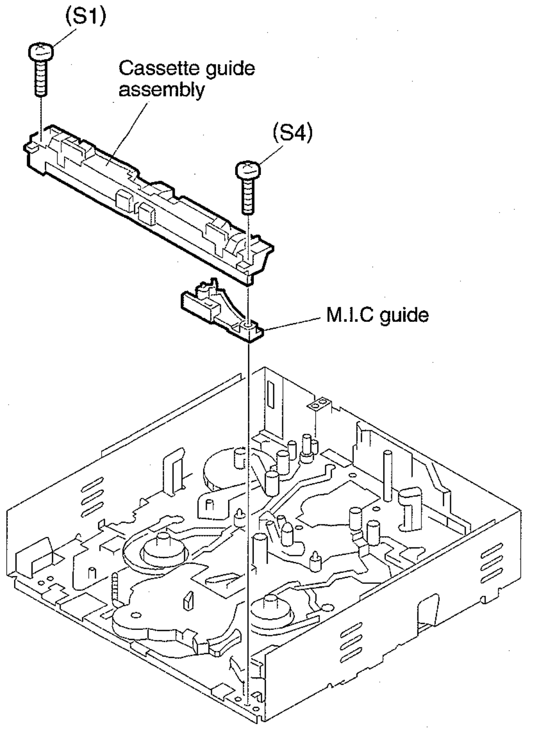
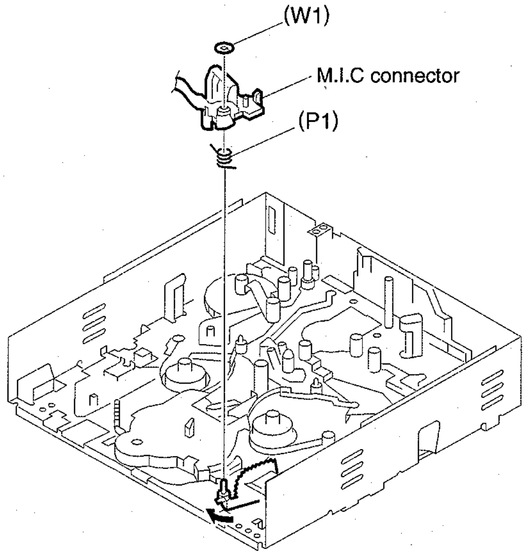
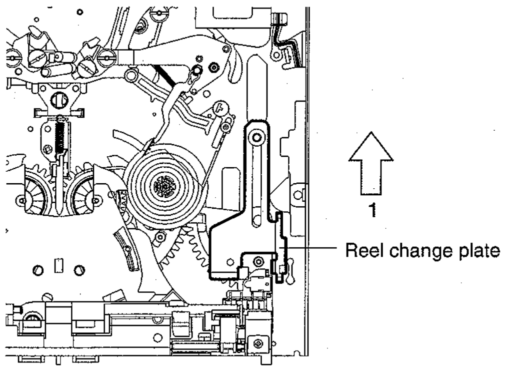
Drum assembly:

1) Remove the Drum FPC from the DV/CPU circuit board CN107.
2) Remove the screw (S3) and remove the drum assembly.

<Assembly>

1) Reverse the disassembly procedure.
2) Drum section screws (S3) should be tightened in order of ① — ③ and using a securing torque of 0.04 N/m (0.4 kgf/cm).

No.	Item	Ref. Illustration	Procedure
3	③ **Pinch roller arm assembly**	 Pinch roller arm assembly Pinch plate Please pay attention not to damage these roller part. Remove while pushing this part. **Fig. 2.6.3**	**<Disassembly>** 1) While pushing the hook on the pinch plate, lift the pinch roller arm assembly upward to remove. **<Assembly>** 1) Reverse the disassembly procedure.
4	④ **Mode motor assembly/** ⑤ **Worm wheel 2/** ⑥ **Gear 1/** ⑦ **Gear 2**	 (S2) Mode motor assembly Worm wheel 2 Gear 1 Gear 2 **Fig. 2.6.4**	**<Disassembly>** ***Mode motor assembly:*** 1) Remove the screw (S2) and remove the mode motor assembly. **Worm wheel 2 & gears 1 and 2:** 1) Lift the worm wheel 2 upward to remove. 2) Lift the gear 1 upward to remove. 3) Lift the gear 2 upward to remove. **<Assembly>** 1) Reverse the disassembly procedure. **Note:** **Worm wheel 2 and gears 1 and 2 do not require the mechanism phase adjustment.**

No.	Item	Ref. Illustration	Procedure
5	**Cassette guide assembly/ M.I.C guide**  (S1) Cassette guide assembly (S4) M.I.C guide Fig. 2.6.5		**<Disassembly>** **Cassette guide assembly:** 1) Remove the screws (S1) (S4) and remove the cassette guide assembly. **M.I.C guide:** 1) While pushing the hook on the M.I.C guide, lift it upward to remove. **<Assembly>** 1) Reverse the disassembly procedure. **Note:** **When install the M.I.C guide, the reel position sould be standard cassette position.**
6	**⑩ M.I.C connector**  (W1) M.I.C connector (P1) Fig. 2.6.6 (1)		**<Disassembly>** 1) Slide the reel change plate in the direction of arrow 1 to place the reel in the mini-cassette position. 2) Remove the slit washer (W1) and remove the M.I.C connector. 3) Remove the spring (P1). **<Assembly>** 1) Reverse the disassembly procedure.  1 Reel change plate Fig. 2.6.6 (2)

No.	Item	Ref. Illustration	Procedure

7

⑪ Idler arm assembly

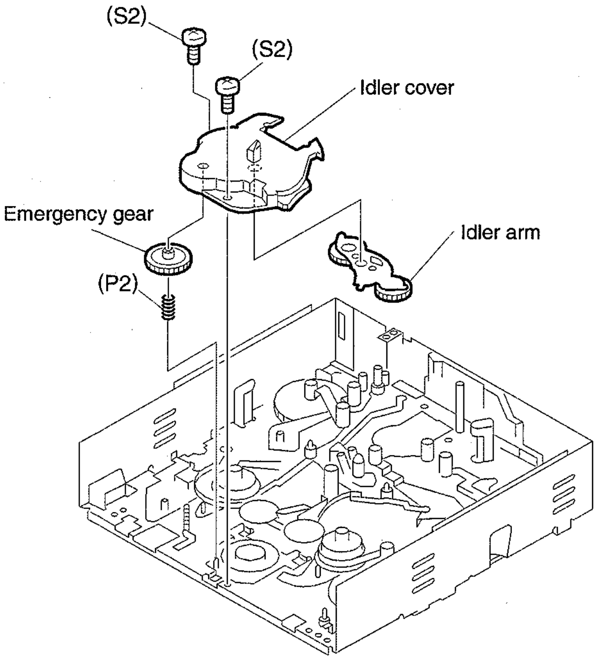


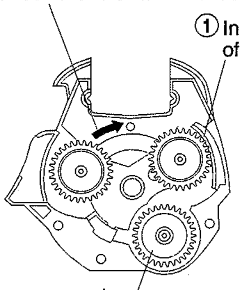
Fig. 2.6.7

<Disassembly>

1) Remove the two screws (S2) and remove the idler cover.
2) Remove the idler arm.
3) Remove the emergency gear.
4) Remove the spring (P2).

<Assembly>

1) Attach the Idler arm and the Emergency gear into the Idler cover.

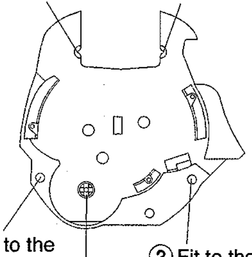


② Rotate the Idler arm to the clockwise direction. (Check the Idler arm moves smoothly.)

① Insert a point of the Idler arm

③ Install the Emergency gear into the Idler cover and push it lightly.

2) Attach the Idler arm assembly onto the Main deck.



④ Hook to the shaft of the Main deck.

① Hook to the shaft of the Main deck.

⑤ Fit to the boss of the Main deck.

② Fit to the boss of the Main deck.

③ Rotate the Emergency gear with screw drive then fit the gear of the Idler arm and the Reel Motor gear.

Caution : When install the Idler arm assembly into the main deck, if the gear of the Idler arm and Reel Motor gear does not fit, these geare may damaged.

No.	Item	Ref. Illustration	Procedure

8

⑫ Supply tension band assembly/ Supply tension arm assembly

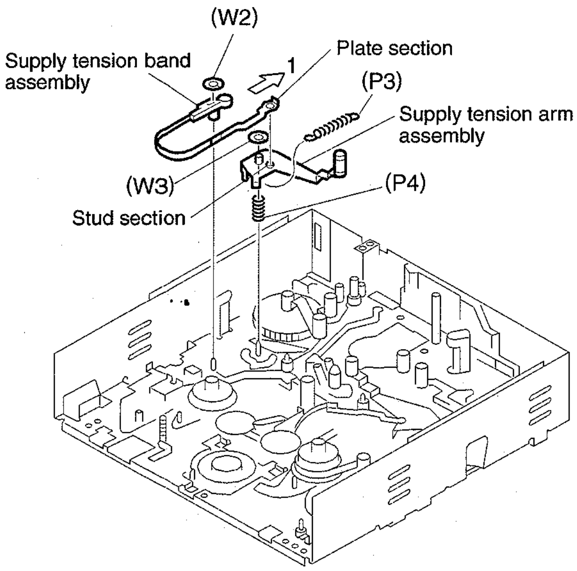

(W2)
Supply tension band assembly
1
Plate section
(P3)
Supply tension arm assembly
(W3)
(P4)
Stud section

Fig. 2.6.8 (1)

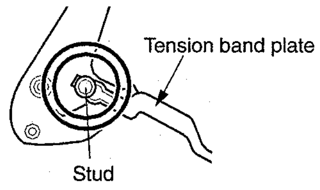

Tension band plate
Stud

Fig. 2.6.8 (2)

<Disassembly>

Supply tension band assembly:

1) Remove the slit washer (W2).
2) Slide the tension band plate in the direction of arrow 1 and remove the plate from the tension arm stud section.

Supply tension arm assembly:

1) Remove the slit washer (W3) and remove the supply tension arm assembly.
2) Unhook the spring (P3) from the tension control arm. (See Fig. 2.6.8 (3))
3) Remove the spring (P4).

<Assembly>

1) Reverse the disassembly procedure.

Notes:

- **Pinch the tension band plate and tension arm stud together and fix them. Be careful not to bend the plate during the above. (See ◎ in Fig. 2.6.8 (2))**
- **The supply tension arm assembly has undergone perpendicularity management after being assembled, so when replacement is required, it will be necessary to replace the entire mechanism assembly.**

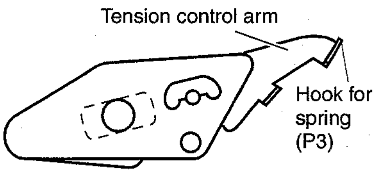

Tension control arm
Hook for spring (P3)

Fig. 2.6.8 (3)

<Supply tension band position adjustment>

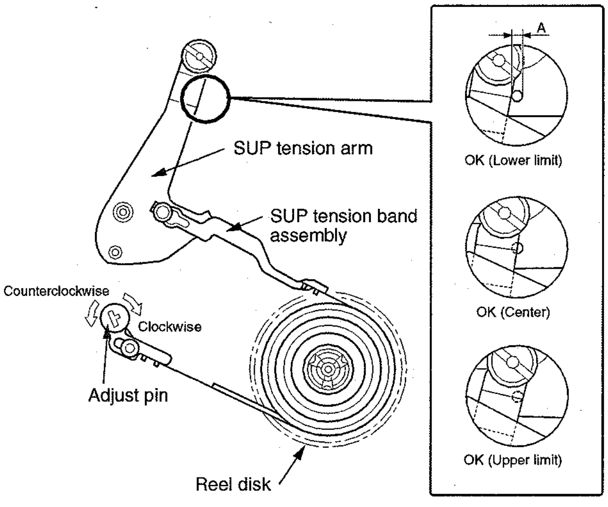

A
SUP tension arm
SUP tension band assembly
Counterclockwise
Clockwise
Adjust pin
Reel disk
OK (Lower limit)
OK (Center)
OK (Upper limit)

Fig. 2.6.8 (4)

1) With the cassette housing removed, place the reel in the mini-cassette position. (See Fig. 2.6.6 (2))
2) Manually rotate the emergency gear of mode motor counterclockwise (See section 2.2.2, "Mode transition".) to perform loading untill the loading end position.
3) Ensure that the right edge of the tension arm is placed within the range of reference hole A on the sub-deck.
4) If the right edge is not within the above range, adjust by turning the adjust pin.

Clockwise rotation : to lower limit
Counterclockwise rotation : to upper limit

No.	Item	Ref. Illustration	Procedure

9

⑭ Take-up tension band assembly/ Take-up tension arm assembly

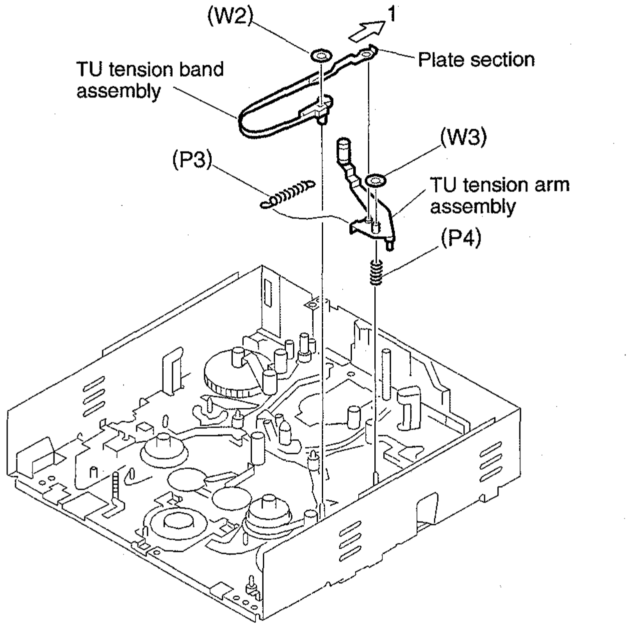

(W2)
1
Plate section
TU tension band assembly
(W3)
(P3)
TU tension arm assembly
(P4)

Fig. 2.6.9 (1)

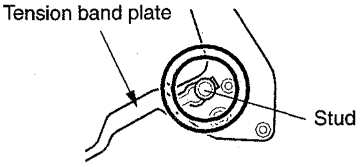

Tension band plate
Stud

Fig. 2.6.9 (2)

<Disassembly>

Take-up tension band assembly:

1) Remove the slit washer (W2).
2) Slide the plate section of tension band in the direction of arrow 1 and remove the plate from the tension arm stud.

Take-up tension arm assembly:

1) Remove the slit washer (W3) and remove the supply tension arm assembly.
2) Unhook the spring (P3) from the tension control arm. (*See Fig. 2.6.9 (3)*)
3) Remove the spring (P4).

<Assembly>

1) Reverse the disassembly procedure.

Notes:

- **Pinch the tension band plate and tension arm stud together and fix them. Be careful not to bend the plate during the above. (See ◎ in Fig. 2.6.8 (2))**
- **The take-up tension arm assembly has undergone perpendicularity management after being assembled, so when replacement is required, it will be necessary to replace the entire mechanism assembly.**

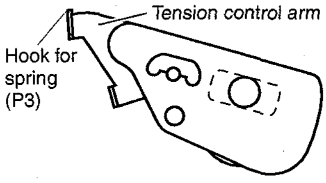

Tension control arm
Hook for spring (P3)

Fig. 2.6.9 (3)

<Take-up tension band position adjustment>

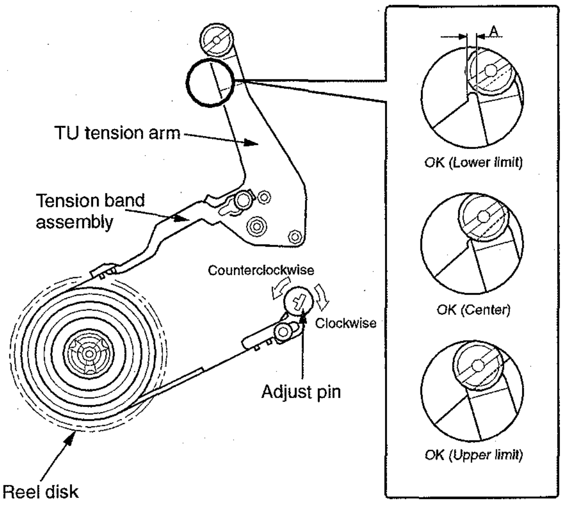
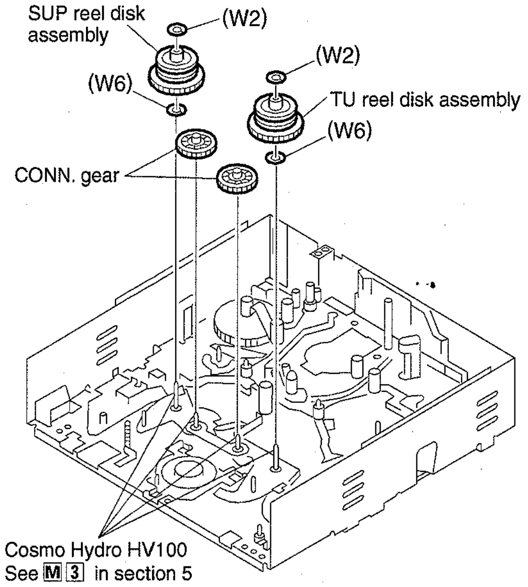
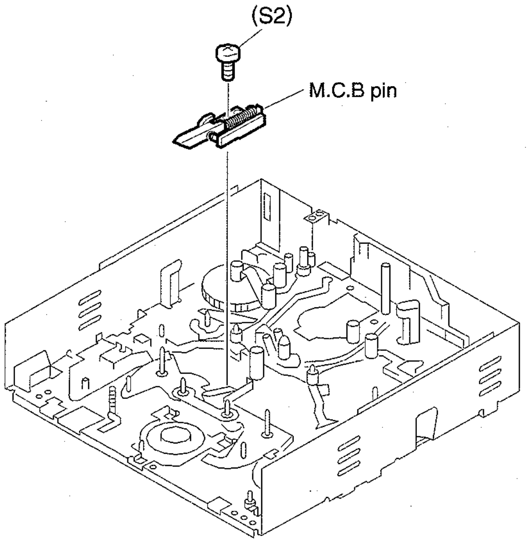
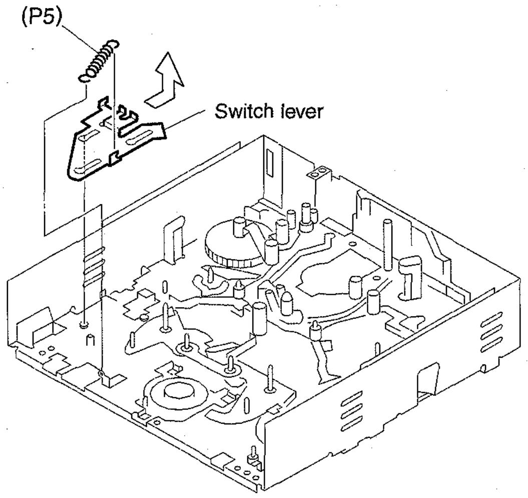
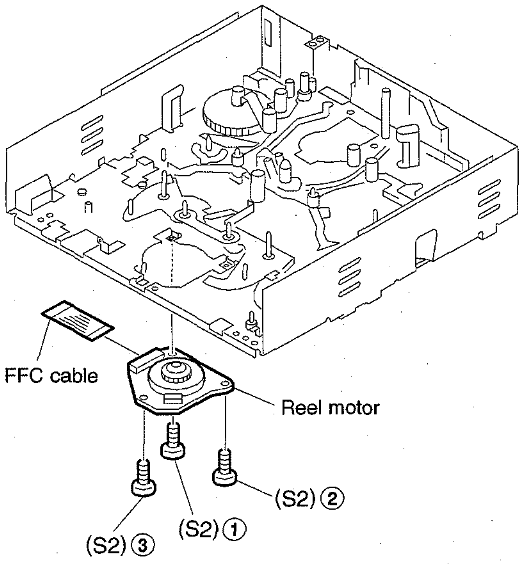

A
TU tension arm
OK (Lower limit)
Tension band assembly
Counterclockwise
Clockwise
OK (Center)
Adjust pin
OK (Upper limit)
Reel disk

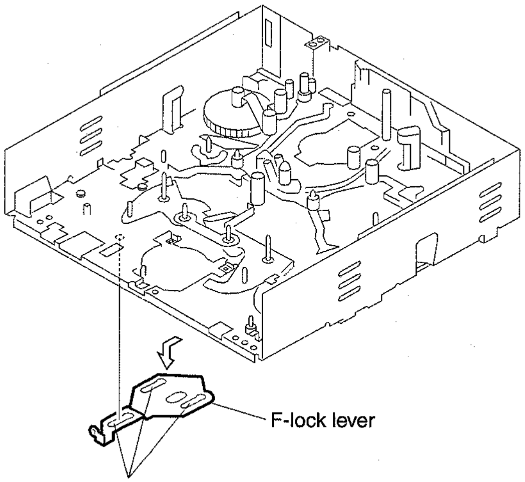
Fig. 2.6.9 (4)

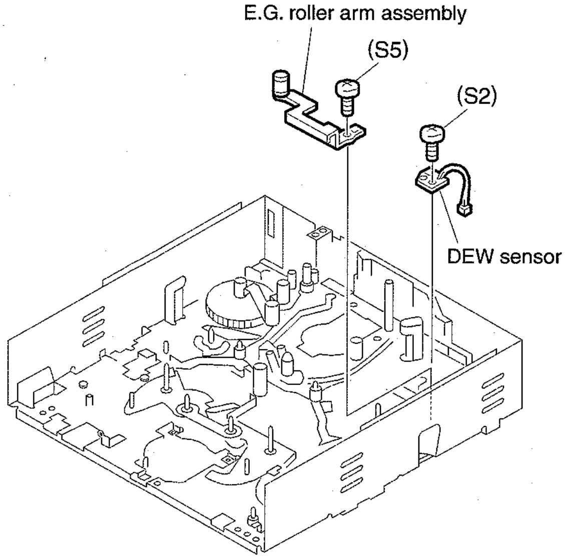
1) With the cassette housing removed, place the reel in the mini-cassette position. (See Fig. 2.6.6 (2))
2) Manually rotate the emergency gear of mode motor counterclockwise (See section 2.2.2, "Mode transition".) to perform loading untill the loading end position.
3) Ensure that the right edge of the tension arm is placed within the range of notch A on the sub-deck.
4) If the right edge is not within the above range, adjust by turning the adjust pin.

Clockwise rotation : to upper limit
Counterclockwise rotation : to lower limit

No.	Item	Ref. Illustration	Procedure
10	**⑯ CONN gear assembly/ ⑰ SUP reel disk assembly/ ⑱ TU reel disk assembly**	 SUP reel disk assembly (W2) (W2) (W6) TU reel disk assembly (W6) CONN. gear Cosmo Hydro HV100 See M 3 in section 5 **Fig. 2.6.10**	**<Disassembly>** **CONN. gear assembly** 1) Lift the two CONN gears upward to remove. **SUP and TU reel disk assemblies:** 1) Remove the two slit washers (W2) and lift the SUP and TU reel disk assemblies separately to remove each assembly. 2) Lift the two washers (W6) to remove. **<Assembly>** 1) Reverse the disassembly procedure.
11	**M.C.B pin**	 **Fig. 2.6.11**	**<Disassembly>** 1) Remove the screw (S2) and remove the M.C.B pin. **<Assembly>** 1) Reverse the disassembly procedure.

No.	Item	Ref. Illustration	Procedure
12	**Switch lever**	 **Fig. 2.6.12**	**<Disassembly>** 1) Unhook the spring (P5). 2) Slide the switch lever in the direction of the arrow and then lift it upward to remove. **<Assembly>** 1) Reverse the disassembly procedure.
13	**㉑ Reel motor**	 **Fig. 2.6.13**	**<Disassembly>** 1) Remove the FFC from the mechanism circuit board CN124. 2) Remove the three screws (S2) and remove the reel motor. **<Assembly>** 1) Reverse the disassembly procedure. 2) Tighten the three screws (S2) in the order of ① - ③. **Note:** ***Be sure to have the FFC cable installed on the reel motor side before attaching.***

<table>
<tr><th>No.</th><th>Item</th><th>Ref. Illustration</th><th>Procedure</th></tr>
<tr><td>14</td><td>F-lock lever</td><td>
F-lock lever
Long Hole Cross-section
Multemp SH-P
See $\boxed{M}\boxed{3}$ in section 5.
Fig. 2.6.14</td><td><Disassembly>
1) Slide the F-lock lever in the direction of the arrow to remove.

<Assembly>
1) Reverse the disassembly procedure.</td></tr>
<tr><td>15</td><td>Dew sensor/ E.G. roller arm assembly</td><td>
E.G. roller arm assembly
(S5)
(S2)
DEW sensor
Fig. 2.6.15</td><td><Disassembly>
Dew sensor:
1) Remove the screw (S5) and remove the DEW sensor.

E.G. roller arm assembly:
1) Remove the screw (S2) and remove the E.G. roller arm assembly.

<Assembly>
1) Reverse the disassembly procedure.

Note:
The E.G. roller arm assembly has undergone perpendicularity management after being assembled, so when replacement is required, it will be necessary to replace the entire mechanism assembly.</td></tr>
</table>

No.	Item	Ref. Illustration	Procedure

16 **Sub-deck/ ㉖ Pinch plate/ ㉗ Capstan motor**

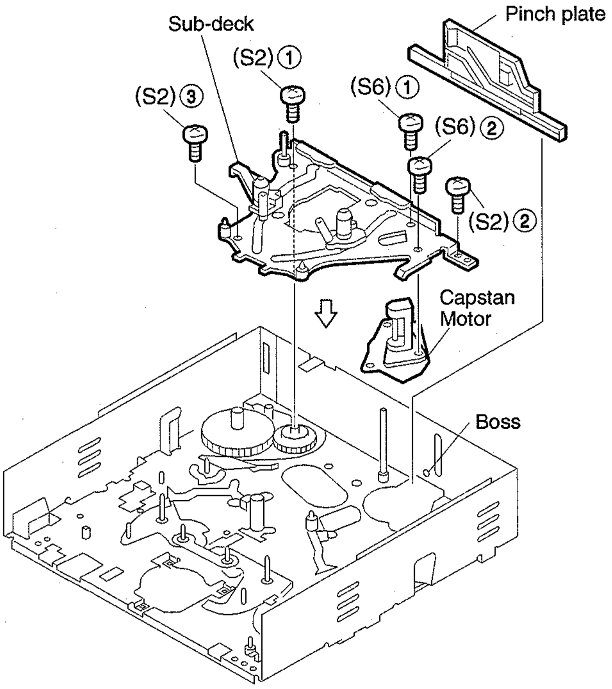

Sub-deck
Pinch plate
(S2)①
(S2)③
(S6)①
(S6)②
(S2)②
Capstan Motor
Boss

Fig. 2.6.16 (1)

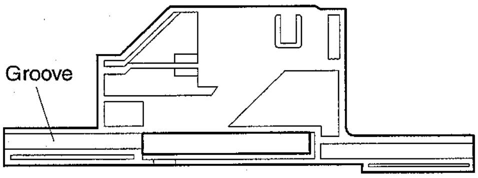


Fig. 2.6.16 (2)

<Disassembly>

Sub-deck/pin plate:

1) Remove the three screws (S2) and slide the sub-deck in the direction of arrow then remove it. The pinch plate also detaches at this time.

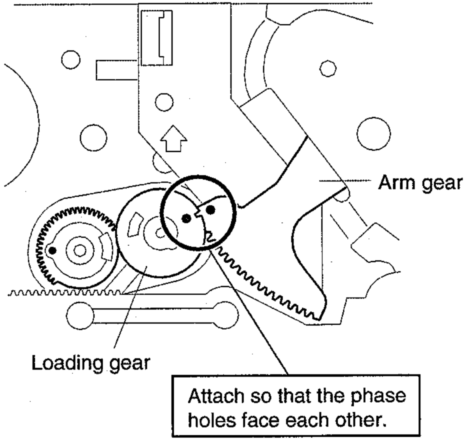
Capstan motor:

1) Remove the two screws (S6) and remove the capstan motor.

<Assembly>

Do this procedure in the unloading end position.

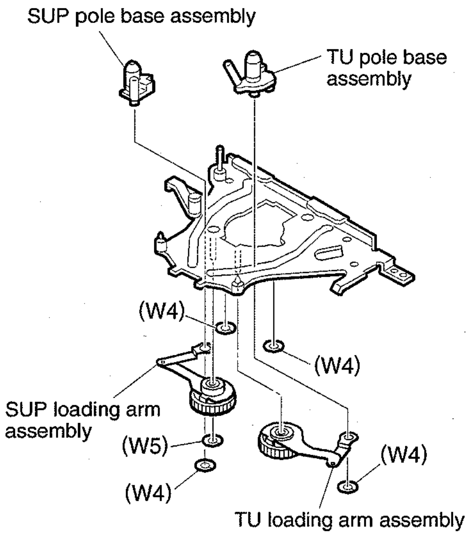
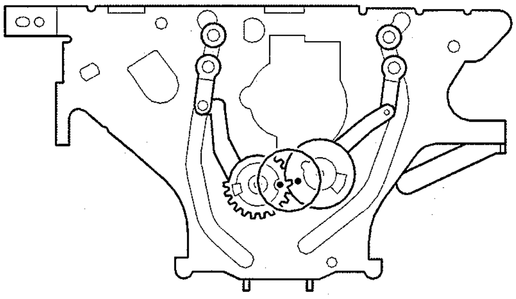
1) Fit the groove on the rear of the pinch plate into the boss on the main deck.
2) Reverse the disassembly procedure.
3) Attach the loading gear and arm gear so that the phase relationship between them is as shown in the figure.


Arm gear
Loading gear
Attach so that the phase holes face each other.

— Unloading End Position —

Notes:

- **Tighten the screws (S2) of the sub deck in the order of ① - ③.**
- **The sub deck assembly has undergone perpendicularity management after being assembled, so when replacement is required, it will be necessary to replace the entire mechanism assembly.**
- **Capstan motor screws (S6) should be tightened in the order of ① - ② and using a securing torque of 0.20 N·m (2 kgf·cm).**

No.	Item	Ref. Illustration	Procedure
17	**㉘ Supply pole base assembly/ ㉙ Take-up pole base assembly**	 SUP pole base assembly TU pole base assembly (W4) (W4) SUP loading arm assembly (W5) (W4) (W4) TU loading arm assembly **Fig. 2.6.17**	**<Disassembly>** **Do this procedure in the loading end position.** **Supply pole base assembly:** 1) Remove the two slit washers (W4) and remove the supply pole base assembly. **Take-up pole base assembly:** 1) Remove the two slit washers (W4) and remove the take-up pole base assembly. **<Assembly>** 1) Reverse the disassembly procedure.
18	**Supply loading arm assembly/ Take-up loading arm assembly**	 **Fig. 2.6.18 Sub Deck Bottom Side**	**<Disassembly>** **Do this procedure in the loading end position.** **Take-up loading arm assembly:** 1) Remove the slit washer (W5) and remove the take-up loading arm assembly. **Supply loading arm assembly:** 1) After removing the take-up loading arm assembly, remove the supply loading arm assembly. **<Assembly>** 1) Reverse the disassembly procedure. 2) Attach so that the gear holes on the assemblies face each other.

19 **Supply reel lock/ Take-up reel lock**

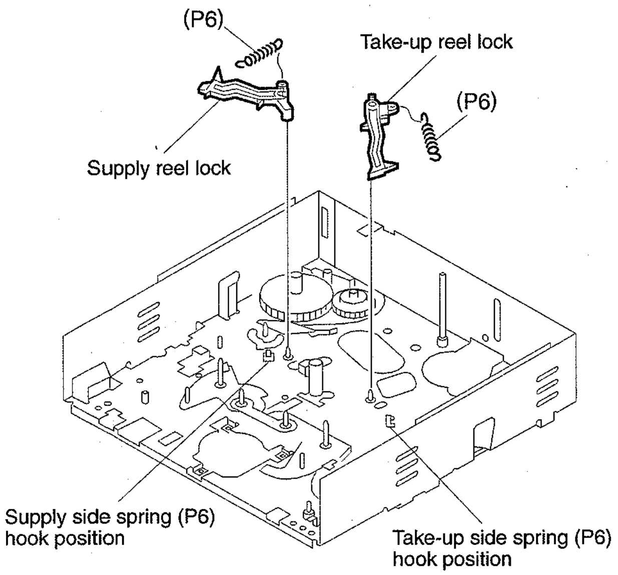

(P6)
Take-up reel lock
(P6)
Supply reel lock
Supply side spring (P6) hook position
Take-up side spring (P6) hook position

Fig. 2.6.19

<Disassembly>

Supply reel lock:

1) Unhook the spring (P6) and lift the supply reel lock upward to remove.

Take-up reel lock:

1) Unhook the spring (P6) and lift the take-up reel lock upward to remove.

<Assembly>

1) Reverse the disassembly procedure.

20 **㉞ Pinch cam gear/ ㉟ Main cam**

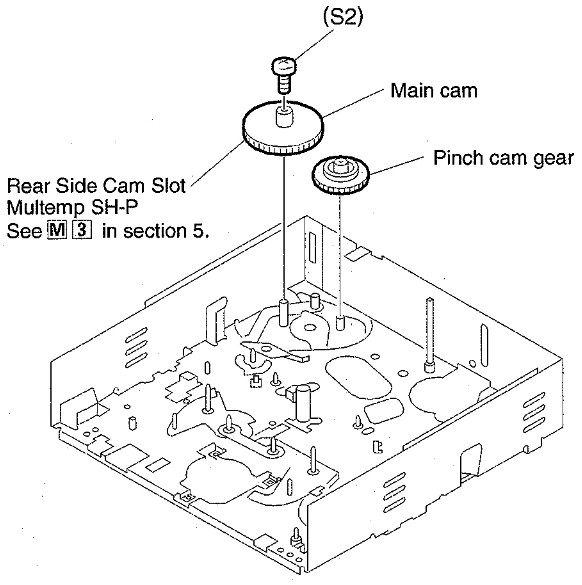

(S2)
Main cam
Pinch cam gear
Rear Side Cam Slot
Multemp SH-P
See M 3 in section 5.

Fig. 2.6.20 (1)

<Disassembly>

Pinch cam gear:

1) Lift the pinch cam gear upward to remove.

Main cam:

1) Remove the screw (S2) and remove the main cam.

<Assembly>

1) Reverse the disassembly procedure.
2) Attach the main cam and pinch cam gear so that their phase relationship is as shown in the figure.

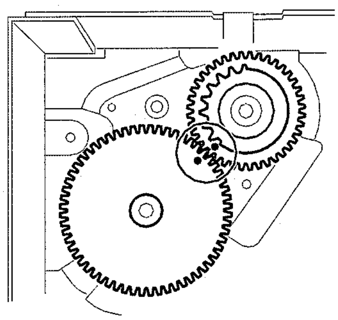
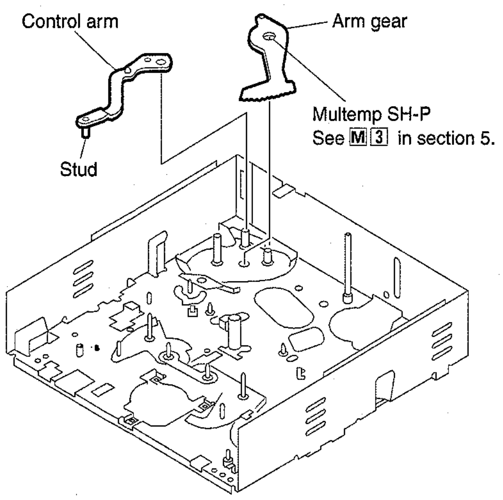
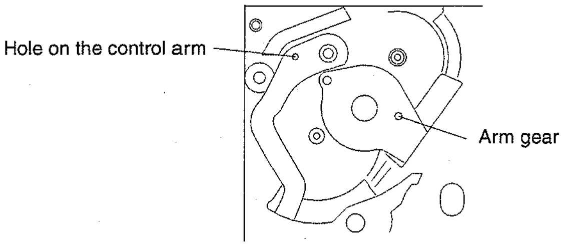
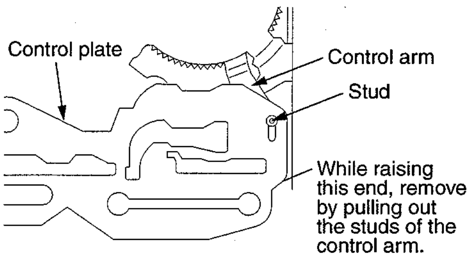
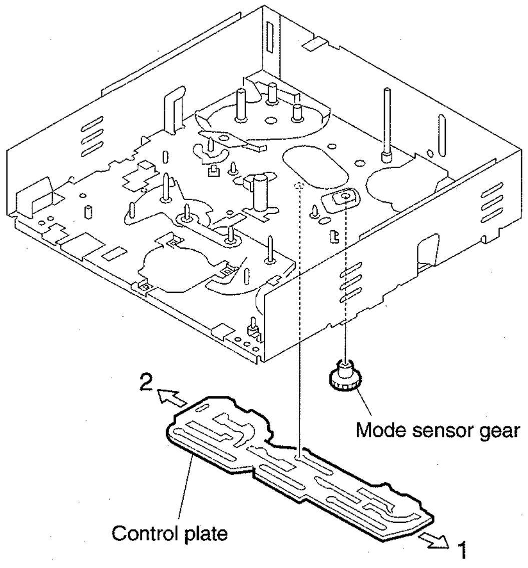
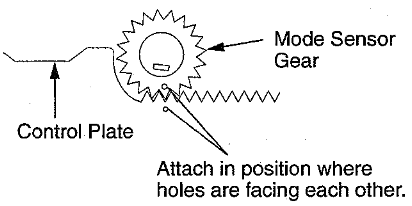


Fig. 2.6.20 (2)

No.	Item	Ref. Illustration	Procedure
21	**㊱ Arm gear/ ㊲ Control arm**	 Control arm Arm gear Stud Multemp SH-P See M3 in section 5. **Fig. 2.6.21 (1)**  Hole on the control arm Arm gear **Fig. 2.6.21 (3)**	**<Disassembly>** **Arm gear:** 1) Remove the main cam as described in No. 20 and remove the arm gear. **Control arm:** 1) Place the main deck upside down. 2) Bend the control plate slightly, disengage the control arm's stud from the groove on the plate and remove the control arm. (Refer to Fig. 2.6.21(2)) **<Assembly>** 1) Reverse the disassembly procedure. 2) Align the hole on the control arm withy that on the main deck. 3) Align the hole on the arm gear with that on the main deck.  Control plate Control arm Stud While raising this end, remove by pulling out the studs of the control arm. **Fig. 2.6.21 (2)**
22	**㊳ Control plate/ Mode sensor gear**	 2 Mode sensor gear Control plate 1 **Fig. 2.6.22 (1)**	**<Disassembly>** **Control plate:** 1) Place the main deck upside down. 2) Slide the control plate in the direction of the arrow 1 to remove. **Mode sensor gear:** 1) Remove the mode sensor gear as if pulling it out. **<Assembly>** 1) Attach the control plate. 2) Slide the control plate in the direction of the arrow 2. 3) Attach the mode sensor gear so that the hole on it is aligned with that on the control plate.  Mode Sensor Gear Control Plate Attach in position where holes are facing each other. **Fig. 2.6.22 (2)**

23 **Leaf plate**

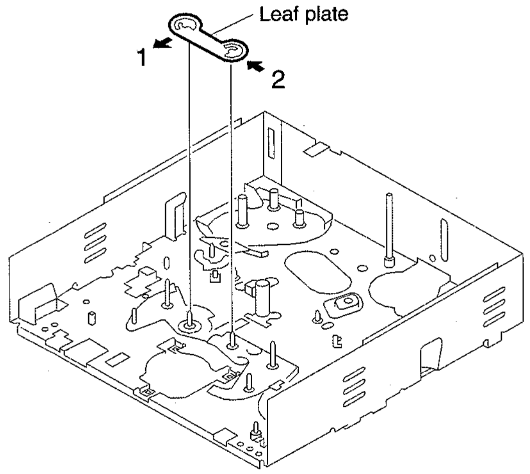


Fig. 2.6.23

<Disassembly>

1) Push the supply side of the leaf plate in the direction of arrow 1 to release the lock.
2) Push the take-up side of the leaf plate in the direction of arrow 2 to release the lock. Now the leaf plate can be removed.

<Assembly>

1) Reverse the disassembly procedure.

Note:
Be careful not to deform the leaf plate during removing or attaching.

24 **㊶ Supply reel plate/ ㊷ Tale-up reel plate**

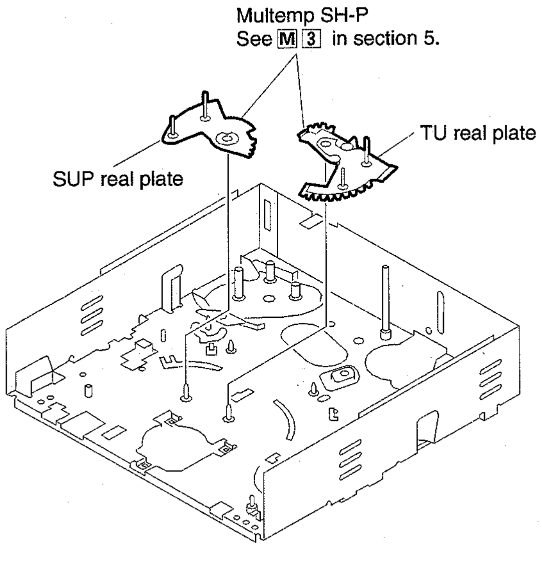


Fig. 2.6.24 (1)

<Disassembly>

Supply reel plate:

1) Slide the reel change plate toward the mini-cassette position. (Stop sliding before it is locked completely.) (See Fig. 2.6.6 (2))
2) Lift the right side of the supply reel plate (gear side) and turn it slightly to remove.

Take-up reel plate:

1) Lift the left side of the take-up reel plate and turn it slightly to remove.

<Assembly>

1) Reverse the disassembly procedure.

Notes:

Take-up reel plate attaching position
Attach the take-up reel plate so that the gear cogs on its inner right side are meshed with those on the left end of the reel plate drive gear.

Supply reel plate attaching position
Attach the supply reel plate so that the gear cogs on its inner right side are meshed with those on the left end of the supply reel plate.

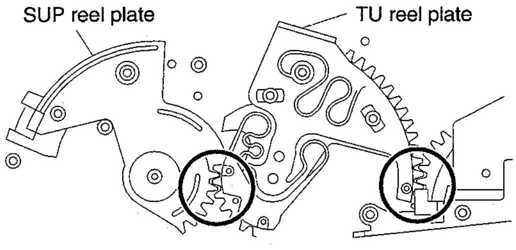


Fig. 2.6.24 (2)

25 **㊸ FPC1 assembly**

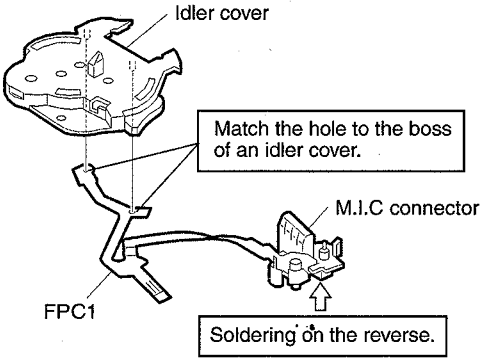

Idler cover
Match the hole to the boss of an idler cover.
M.I.C connector
FPC1
Soldering on the reverse.

Fig. 2.6.25

<Disassembly>

1) Remove the M.I.C connector and idler arm assembly as described in section 2.6.7.
2) Remove solder from the M.I.C connector (6 positions).
3) Remove the FPC1 assembly by performing the same operation as peeling adhesive tape off for the idler cover section.

<Assembly>

1) Reverse the disassembly procedure.

Note:
Do not reuse the removed FPC1 assembly.

26 **FPC2 assembly/ FPC3 assembly**

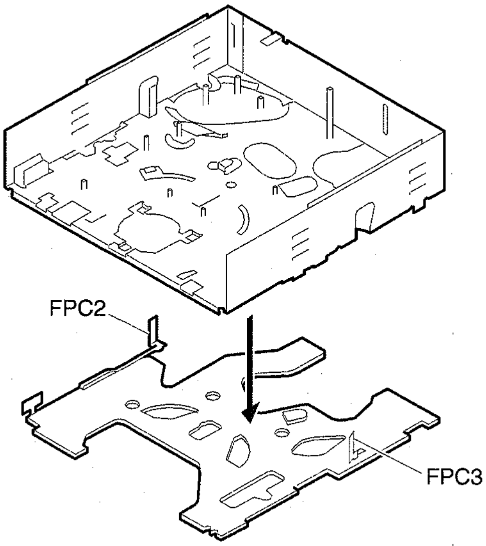


Fig. 2.6.26 (1)

<Disassembly>

FPC2 assembly:

1) Remove solder from CN126 on the mechanism board.
2) Remove the FPC2 assembly as if peeling adhesive tape off.

FPC3 assembly:

1) Remove solder from CN127 on the mechanism board.
2) Remove the FPC3 assembly as if peeling adhesive tape off.

<Assembly>

1) Reverse the disassembly procedure.

Note:
Do not reuse the removed FPC1 and FPC2 assemblies.

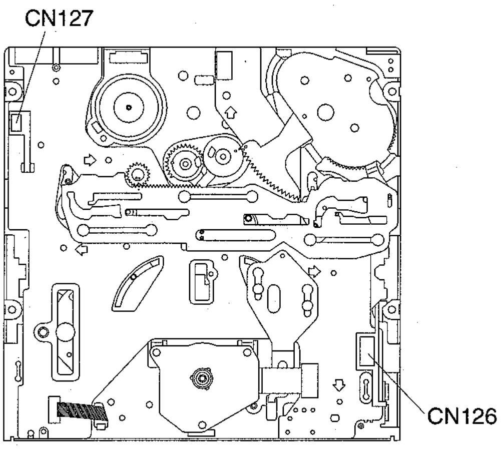

CN127
CN126

Fig. 2.6.26 (2)

27

Cassette LED/ LED holder/ MECHA board assembly

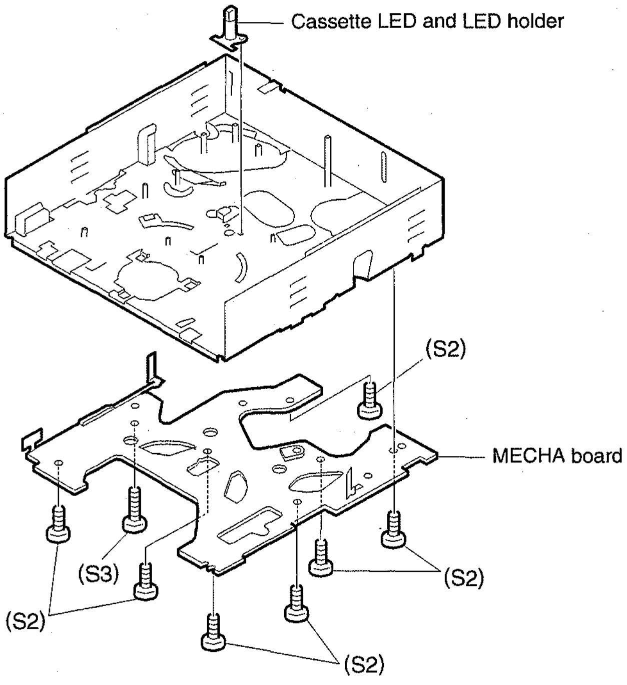

Cassette LED and LED holder
(S2)
MECHA board
(S3)
(S2)
(S2)
(S2)

Fig. 2.6.27 (1)

<Disassembly>

Cassette LED:

1) Remove solder from LD1 on the mechanism board and remove the cassette LED.

LED holder:

1) While pushing the three claws locking the LED holder, remove it.

MECHA board assembly:

1) Remove the seven screws (S2) and a screw (S3), then remove the MECHA board assembly.

<Assembly>

1) Reverse the disassembly procedure.
2) Tighten the eight screws of the mechanism board assembly in the order shown in the illustration.

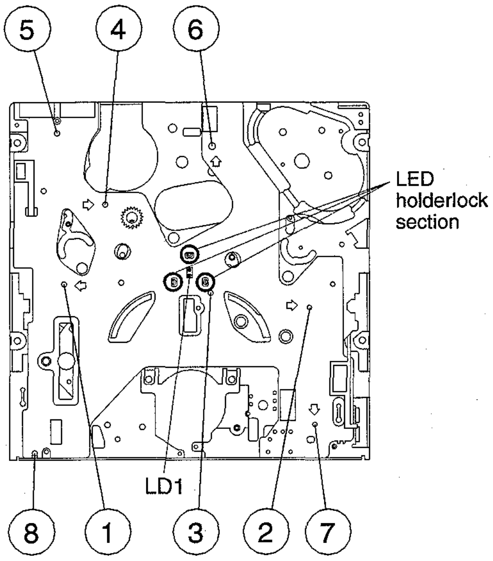
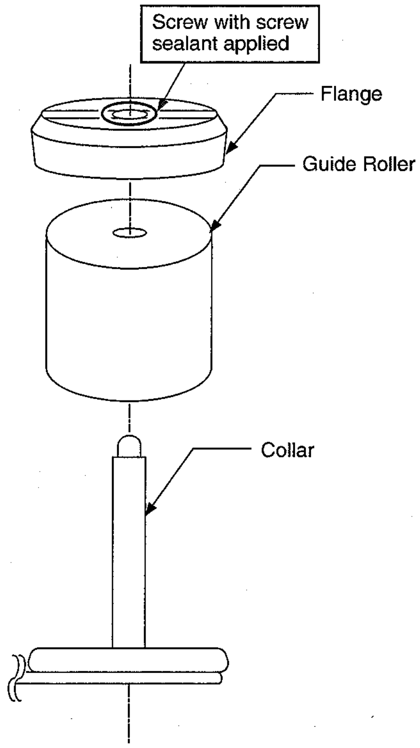

⑤
④
⑥
LED holderlock section
LD1
⑧
①
③
②
⑦

Fig. 2.6.27 (2) — Mechanism unit bottom side —

Note:
Makce sure the three claws locking of the LCD holder does not loosen.

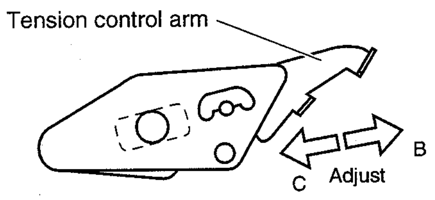
2.7 GUIDE ROLLER REPLACEMENT METHOD

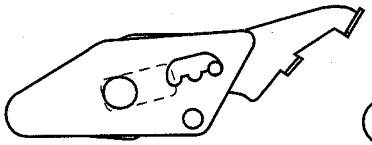
Since the SUP/TU tension arm assembly, sub deck assembly (ENT, G, roller section), and E.G.R. arm, have all undergone perpendicularity management after being assembled respectively, assembly replacement of these is not possible.
For maintenance, only the guide roller can be replaced.

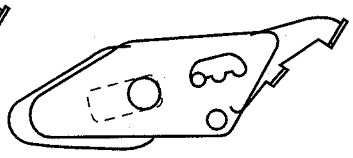
No.	Item	Ref. Illustration	Procedure
1	**Ⓓ Guide roller replacement procedure for SUP/TU tension arm assembly and ENT.G. roller/E.G. roller arm assembly**	 Screw with screw sealant applied Flange Guide Roller Collar **Fig. 2.7.1**	**<Removing>** 1) Remove the flange on the upper part of the guide roller as you would remove a screw. 2) Pull the guide roller upward and remove it. 3) Pull the collar upward and remove it. **<Installing>** 1) Proceed in the reverse order as when removing. 2) When fixing the flange in place, first tighten by hand until it stops, then tighten further using a securing torque of 0.04 N/m (0.4 kgf/cm). 3) After fixing in place, apply screw sealant to the screw on the upper end of the flange. **Note:** **When applying additional tightening force, avoid excessive force that may cause distortion of the arm section.**

2.8 TORQUE ADJUSTMENT

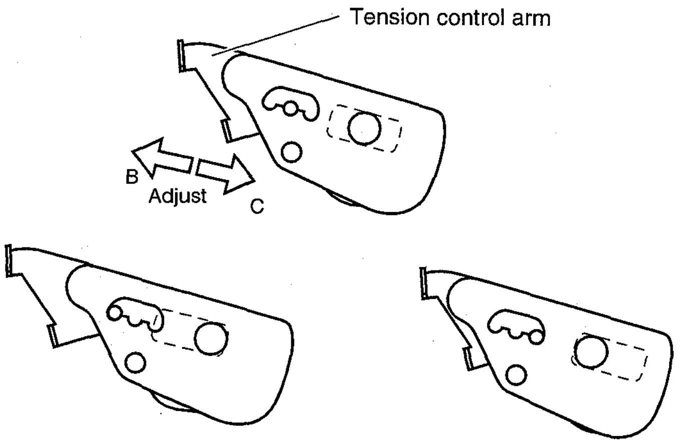
No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⦶) Adjustment level (☆)	Adjustment procedure
1	Supply back torque adjustment	Cassette torque meter YTU94150A	Play	◎ Supply side reading of cassette torque meter ☆ $6.5^{+1.0}_{-0.5} \times 10^{-4}$ N·m	1) Insert the torque cassette meter YTU94150A and press the [PLAY] button. 2) Ensure that the SUP back torque value is within the specified range. (If the reading varies, read the center value.) 3) If the reading is out of specification, eject the cassette and adjust by moving the tension control arm. · To increase the torque → Move in direction B · To decrease the torque → Move in direction C. 4) Perform steps 1) and 2) above again and ensure that the SUP back torque value is within the specified range. If it is out of specification, check the <Supply tension band position adjustment> in 2.6.8 above.




To increase the torque


To decrease the torque

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⦶) Adjustment level (☆)	Adjustment procedure
2	Take-up wind torque adjustment	Cassette torque meter YTU94150A	PLAY, Adjustment menu No. 119	◎ Take-up side reading of cassette torque meter ☆ $11.5^{+1.0}_{-0.5} \times 10^{-4}$ N·m	1) Select adjustment menu [119. FWD TORQUE]. **(For the adjustment menu, see 3.3, "Adjustment menu".)** 2) Insert the torque cassette meter YTU94150A and press the [PLAY] button. 3) Adjust the TU wind torque so that it is within the specified range. · Press SHUTTER dial to enter the adjustment mode. · To increase the torque → Rotate SHUTTER dial to the clockwise. · To decrease the torque → Rotate SHUTTER dial to the counter-clockwise. 4) After adjustment, press SHUTTER dial to store the adjustment data.

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (Ⓣ) Adjustment level (☆)	Adjustment procedure
3	Take-up back torque adjustment	Cassette torque meter KLJ0312	REV x 1	◎ Take-up side reading of cassette torque meter ☆ $6.5^{+1.0}_{-0.5} \times 10^{-4}$ N·m  To increase the back torque To decrease the back torque	1) Insert the torque cassette meter KLJ0312 and enter REV x1 mode. 2) Ensure that the TU back torque value is within the specified range. (If the reading varies, read the center value.) 3) If the reading is out of specification, eject the cassette and adjust by moving the tension control arm. · To increase the torque → Move in direction B · To decrease the torque → Move in direction C. 4) Perform steps 1) and 2) above again and ensure that the TU back torque value is within the specified range. If it is out of specification, check the <Take-up tension band position adjustment> in 2.6.9 above.
4	SUP wind torque CHECK	Cassette torque meter KLJ0312	REV x 1	◎ Take-up side reading of cassette torque meter ☆ $11.5^{+1.5}_{-1.0} \times 10^{-4}$ N·m	1) Insert the torque cassette meter KLJ0312 and enter REV x1 mode. 2) Ensure that the SUP wind torque is within the specified range. If it is out of specification, check the assembly condition of the reel drive parts.

2.9 INTERCHANGEABILITY ADJUSTMENT

2.9.1 Interchangeabilty adjustment flow chart

Fig. 2-8-1 shows the flow chart of compatibility adjustment.

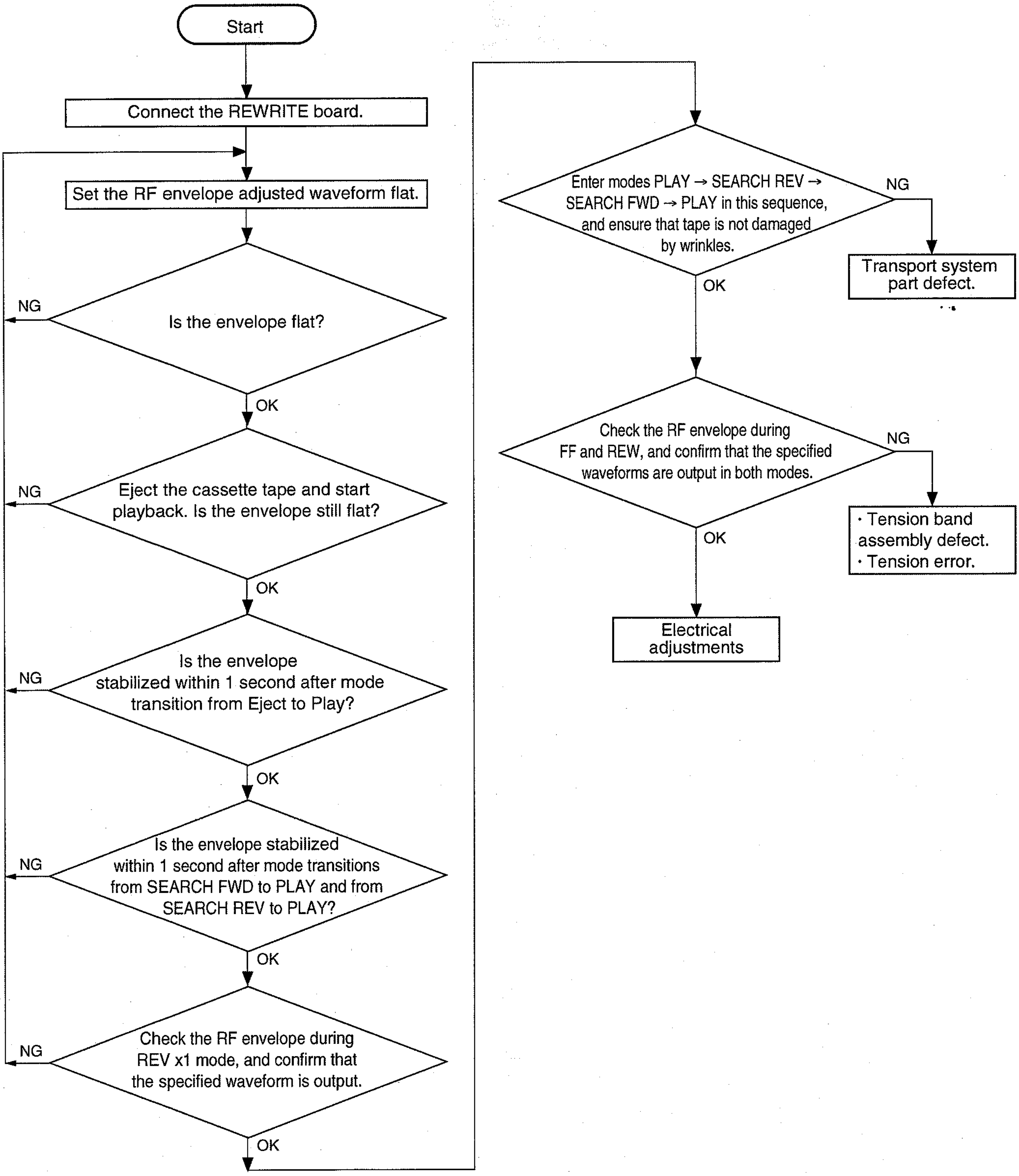

Start
Connect the REWRITE board.
Set the RF envelope adjusted waveform flat.
Is the envelope flat?
NG
OK
Eject the cassette tape and start playback. Is the envelope still flat?
NG
OK
Is the envelope stabilized within 1 second after mode transition from Eject to Play?
NG
OK
Is the envelope stabilized within 1 second after mode transitions from SEARCH FWD to PLAY and from SEARCH REV to PLAY?
NG
OK
Check the RF envelope during REV x1 mode, and confirm that the specified waveform is output.
NG
OK
Enter modes PLAY → SEARCH REV → SEARCH FWD → PLAY in this sequence, and ensure that tape is not damaged by wrinkles.
NG
Transport system part defect.
OK
Check the RF envelope during FF and REW, and confirm that the specified waveforms are output in both modes.
NG
· Tension band assembly defect.
· Tension error.
OK
Electrical adjustments

Fig. 2-9-1

2.9.2 Tape Transport Restriction

The unit uses only the SUP guide roller and TU guide roller to restrict the tape transport. The tape is free (no restriction) from other parts.

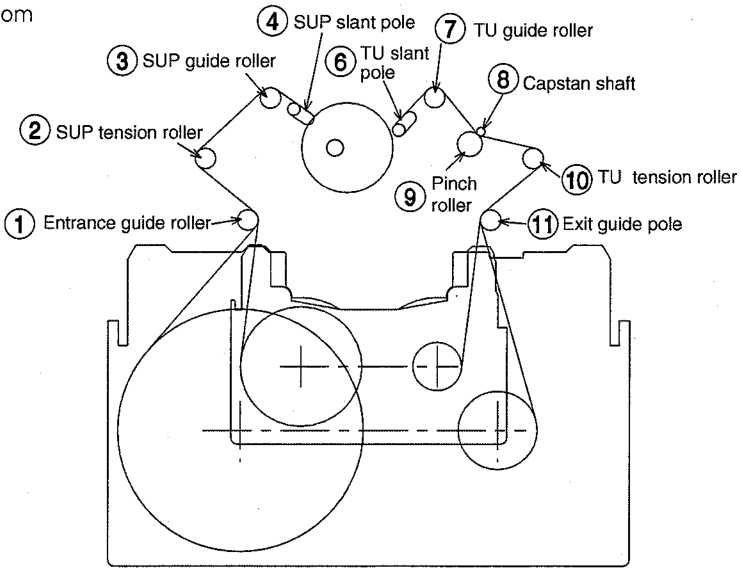

④ SUP slant pole
⑦ TU guide roller
③ SUP guide roller
⑥ TU slant pole
⑧ Capstan shaft
② SUP tension roller
⑨ Pinch roller
⑩ TU tension roller
① Entrance guide roller
⑪ Exit guide pole

Fig. 2.9.2

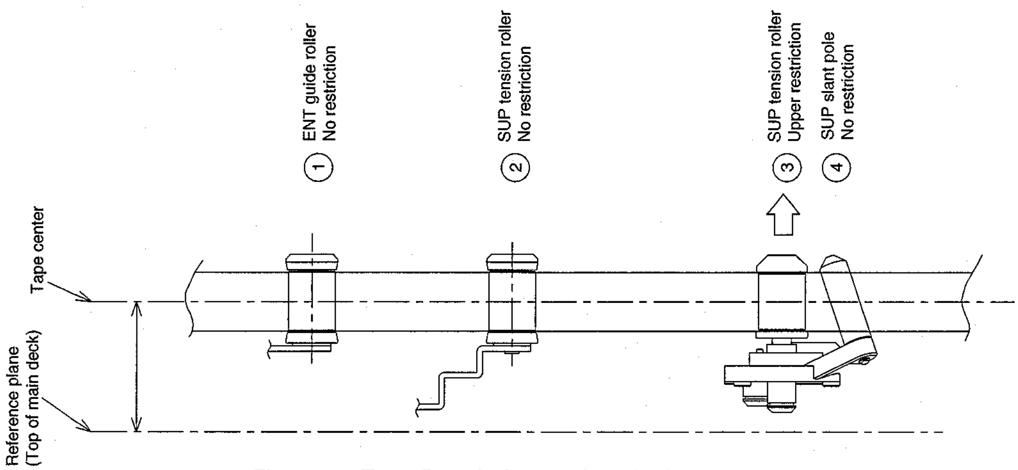

① ENT guide roller No restriction
② SUP tension roller No restriction
③ SUP tension roller Upper restriction
④ SUP slant pole No restriction
Tape center
Reference plane (Top of main deck)

Fig. 2.9.3 Tape Restriction on Supply Side

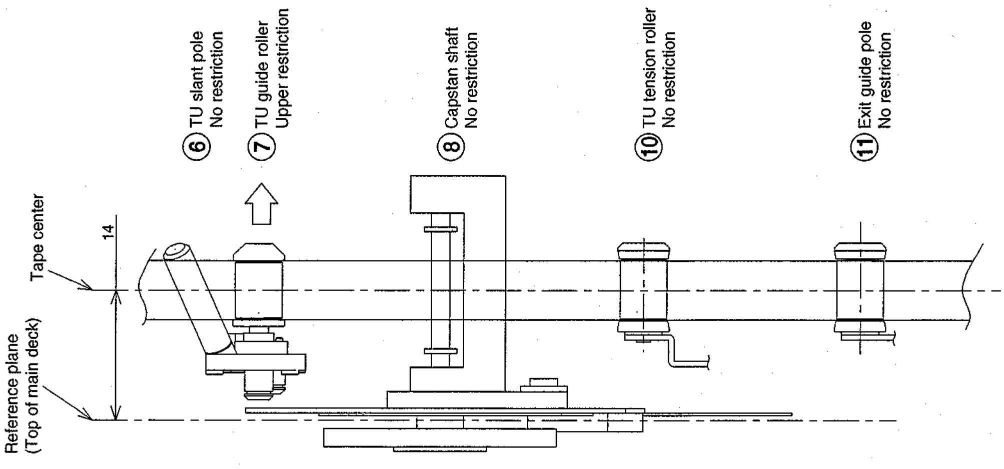
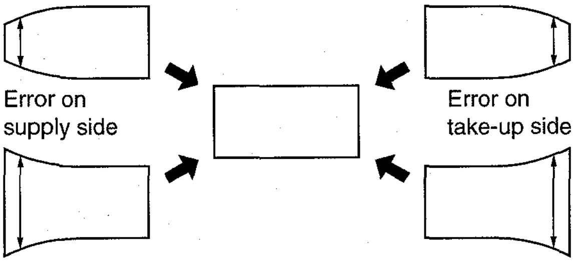
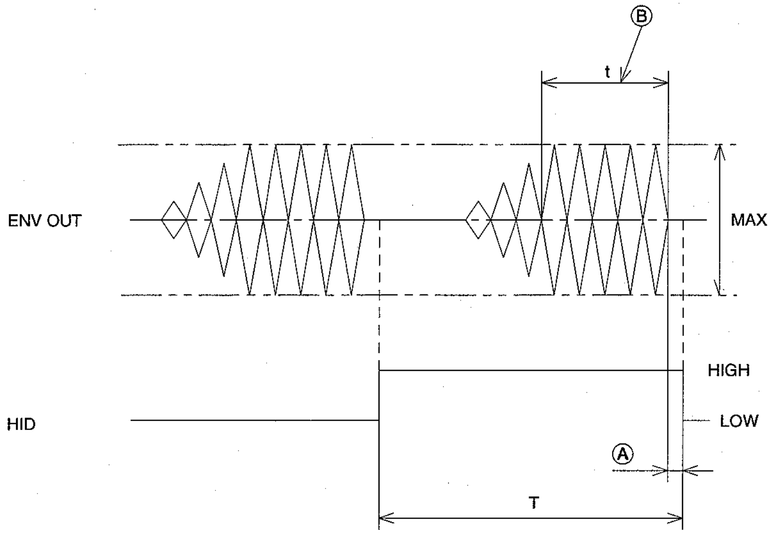

⑥ TU slant pole No restriction
⑦ TU guide roller Upper restriction
⑧ Capstan shaft No restriction
⑩ TU tension roller No restriction
⑪ Exit guide pole No restriction
14
Tape center
Reference plane (Top of main deck)

Fig. 2.9.4 Tape Restriction on Take-up Side

2.9.3 Interchangeability adjustment

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (Ⓣ) Adjustment level (☆)	Adjustment procedure
1	Preparation				(1) Connect a REWRITE board to the CN801 on the DBCP board. Refer to section 3 for more details. (Fig. 3.4 REWRITE board connection method) **Note:** **Be sure to clean the tape transport parts and play a cleaning tape before proceeding to the *compatibility adjustment*.**
2	RF envelope adjustment	• Oscilloscope, alignment tape MC-1(NTSC) MC-2(PAL) Color bar portion	Play	◎ TP9 ENV OUT [REWRITE board] ◎ TP5 HID [REWRITE board] Ⓣ Supply guide roller Ⓣ Take-up guide roller ☆ Make the wave-forms flat. The drop level should be less than 3 dB with both SUP and TU levels. ☆ Flatness variation should be less than 2 dB.  **Fig. 2.9.5**	(1) Play alignment tape color bar portion. (2) Observe the measuring points and adjust the supply guide roller and take-up guide roller so that the RF envelope is flat. (3) Set the mode to EJECT, then set to the PLAY mode and ensure that the RF envelope is flat.

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (↑) Adjustment level (☆)	Adjustment procedure
3	Waveform rise check	• Oscilloscope, alignment tape MC-1(NTSC) MC-2(PAL) Color bar portion	Eject →Play Search FWD →Play Search REV → Play	◎ ENV OUT [REWRITE board] ◎ HID [REWRITE board] ☆The envelope waveform should be restored within 1 sec.	(1) Switch the mode from Eject → Play and ensure that the envelope is stabilized in less than 1 sec. (2) Switch the mode from Search FWD → Play and from Search REV → Play, and ensure that the envelope is stabilized in less than 1 sec. in both cases. (3) If the envelope does not stabilized in the specified period, fine-adjust the supply/take-up guide rollers as far as the envelope waveform specification is met, then restart checking from the above procedure (1) again.
4	Damage check	• Self-recorded/ played tape 60 ME 270ME	Play ↓ Search REV ↓ Search FWD ↓ Play	◎ ENV OUT [REWRITE board] ◎ HID [REWRITE board] ☆The tape should not be damaged by wrinkle.	(1) Transport the self-recorded/played Mini cassette tape from the beginning by changing modes in order of Play → Search REV → Search FWD → Play, and ensure that wrinkles due to strong restriction by the guide rollers and guide pole are not produced on tape. (2) Perform the same check at the section near the end of tape. (3) Make sure that no tape damage occurs when a tape is being loaded, unloaded or ejected. (4) Perform the same produre (1) — (3) with standard cassette.
5	Envelope check during FF/REW	• Oscilloscope, alignment tape MC-1(NTSC) MC-2(PAL) Color bar portion	FF REW	◎ ENV OUT [REWRITE board] ◎ HID [REWRITE board] ☆A > 55µsec. ☆B ≧ T/3  **Fig. 2.9.6**	**This checking should be done after completing the switching point adjustment.** (1) Insert the alignment tape and enter Stop mode. (2) Enter FF mode. (3) Ensure that the envelope output is present at 55 µs before the HID switching timing. (4) Check the take-up side of the envelope to see that the MAX output duration is more than 1/3 the HID duration. (5) Enter REW mode and check the same items as (3) and (4) above. (6) If the envelope is out of specification, check the tension band and main brake assembly and replace as needed. Confirm the playback switching point.

SECTION 3
ELECTRICAL ADJUSTMENTS

3.1 FUNCTIONS REQUIRED FOR ADJUSTMENTS, SETUP

3.1.1 General instruments necessary for adjustment

Instrument	Condition	Instrument	Condition
Oscilloscope	Calibrated instrument with a measuring bandwidth of 100 MHz or more.	Frequency counter	Instrument calibrated for 8 digits or more. Stability of 0.1 ppm or 1x10^{-7} or better is required at 0 to 40°C.
Vectorscope	Calibrated instrument		
Audio tester	Calibrated instrument	Monitor TV	Color video monitor with a 75Ω video input.

3.1.2 Special implements required for adjustment

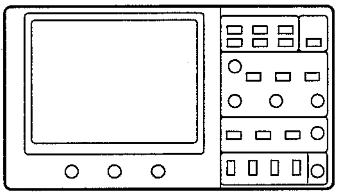
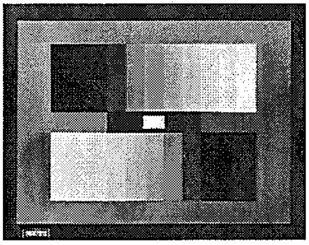
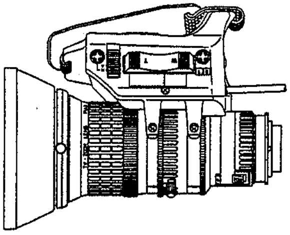
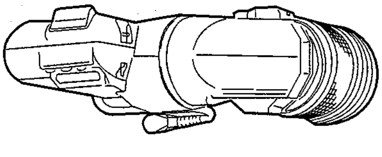
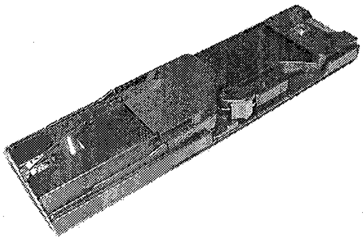
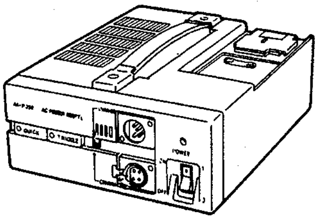
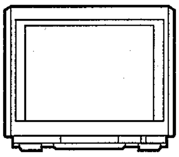
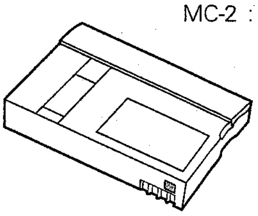
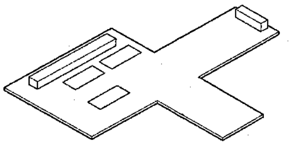
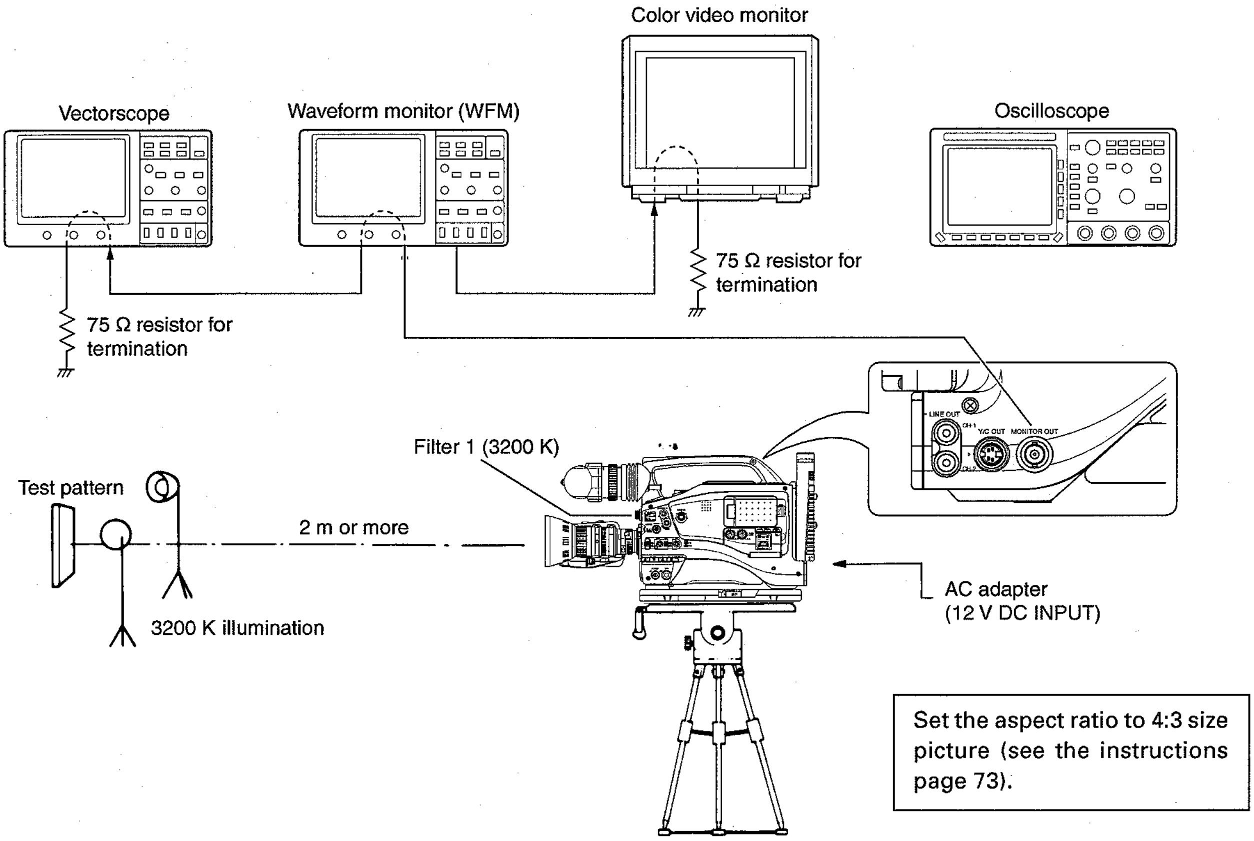
1	Waveform monitor (WFM)	2	Gray scale chart	3	Lens
			(Part No.:GS2L) 		S14 x 7.3B12 or equivalent 
4	Viewfinder	5	Tripod base	6	Power supply unit
	VF-P115B or equivalent 		Accessory (Part No. : SCV3021-001) 		AA-P250 or equivalent 
7	Monitor TV	8	Alignment tape	9	REWRITE board
			MC-1 : NTSC MC-2 : PAL 		CK453800B 

Fig. 3-1-1 Special implements required for adjustment

3.2 STANDARD SETUP


Color video monitor
Vectorscope
Waveform monitor (WFM)
Oscilloscope
75 Ω resistor for termination
75 Ω resistor for termination
LINE OUT
CH-1
Y/C OUT
MONITOR OUT
CH-2
Filter 1 (3200 K)
Test pattern
2 m or more
3200 K illumination
AC adapter
(12 V DC INPUT)

Set the aspect ratio to 4:3 size picture (see the instructions page 73).

Adjustment items

For Camera adjustment

No.	Item name	Indication	Adjustment value	Remarks
0	FH adjustment	FH	0 ~ 255	
1	ENCODER adjustment	ENCODER	0 ~ 255	
2	CHROMA adjustment	CHROMA LEVEL	0 ~ 255	
3	SETUP OFF adjustment	SETUP OFF	50 ~ 255	
4	BLACK (B) adjustment	FPGA BLACK (B)	0 ~ 20	
5	BLACK (R) adjustment	FPGA BLACK (R)	0 ~ 20	
6	MASTER BLACK adjustment	MASTER BLACK	0 ~ 20	
7	IN GAIN (Gch) adjustment	IN GAIN (G)	0 ~ 255	
8	IN GAIN (Rch) adjustment	IN GAIN (R)	0 ~ 255	
9	IN GAIN (Bch) adjustment	IN GAIN (B)	0 ~ 255	
10	FLARE (R) adjustment	FPGA FLARE (R)	0 ~ 20	
11	FLARE (B) adjustment	FPGA FLARE (B)	0 ~ 20	
12	MASTER FLARE adjustment	MASTER FLARE	0 ~ 50	
13	LOLUX BLACK (B) adjustment	LOLUX BLACK (B)	0 ~ 20	
14	LOLUX BLACK (R) adjustment	LOLUX BLACK (R)	0 ~ 20	
15	LOLUX MASTER BLACK adjustment	LOLUX MASTER BLACK	0 ~ 20	
16	AFE OUT BLACK (B) adjustment	AFE OUT BLACK (B)	0 ~ 20	
17	AFE OUT BLACK (R) adjustment	AFE OUT BLACK (R)	0 ~ 20	
18	AFE MASTER BLACK adjustment	AFE MASTER BLACK	0 ~ 20	

For AUDIO adjustment

No.	Item name	Indication	Adjustment value	Remarks
20	AUDIO LEVEL (CH1) adjustment	AUDIO LEVEL (CH1)	0 ~ 255	
21	AUDIO LEVEL (CH2) adjustment	AUDIO LEVEL (CH2)	0 ~ 255	

For LCD adjustment

No.	Item name	Indication	Adjustment value	Remarks
40	SUB-BRIGHT R adjustment	SUB-BRIGHT R	0x1b ~ 0x6b	Unnecessary
41	SUB-BRIGHT B adjustment	SUB-BRIGHT B	0x1b ~ 0x6b	Unnecessary
42	CONTRAST adjustment	CONTRAST	0x64 ~ 0xa0	Unnecessary
43	SUB-CONTRAST R adjustment	SUB-CONTRAST R	0x0a ~ 0x5a	Unnecessary
44	SUB-CONTRAST B adjustment	SUB-CONTRAST B	0x28 ~ 0x78	Unnecessary
45	γ-1 adjustment	GAMMA-1	0x00 ~ 0x50	Unnecessary
46	γ-2 adjustment	GAMMA-2	0x00 ~ 0x50	Unnecessary
47	PSIG BRIGHT adjustment	PSIG BRIGHT	0x28 ~ 0x78	
48	COMMON DC adjustment	COMMON DC	0x1b ~ 0x6b	
49	HUE adjustment	HUE	0x23 ~ 0x5f	Unnecessary
50	VCO FINE adjustment	VCO FINE	0x96 ~ 0xe6	
51	BLACK LIMITER adjustment	BLACK LIMITER	0x00 ~ 0x3f	Unnecessary
52	VCO COARSE adjustment	VCO COARSE	0x01 ~ 0x07	Unnecessary
53	H-POSITION adjustment	H-POSITION	0x02 ~ 0x1f	

For DVC unit adjustment

No.	Item name	Indication	Adjustment value	Remarks
100	SW POINT adjustment	PB SW POINT	00000000 ~ FFFFFFFF	
105	ME REC CURRENT adjustment	ME REC CURRENT	0 ~ 255	
106	ME SP VCO adjustment	ME SP VCO	0000H ~ FFFFH	
110	FS PLL 48kHz adjustment	FS PLL 48kHz	0 ~ 255	
111	FS PLL 44.1kHz adjustment	FS PLL 44.1kHz	0 ~ 255	
112	FS PLL 32kHz adjustment	FS PLL 32kHz	0 ~ 255	
113	27MHz VCO adjustment	27MHz VCO	0 ~ 255	
114	ATF GAIN adjustment	ATF GAIN	0 ~ 255	Unnecessary
115	AGC GAIN adjustment	AGC GAIN	0 ~ 255	Unnecessary
118	BGNEND SENS adjustment	BGNEND SENS	0 ~ 255	Unnecessary
119	FWD TORQUE adjustment	FWD TORQUE	0 ~ 255	See section 2.8 page 2-25
120	REV TORQUE adjustment	REV TORQUE	0 ~ 255	Unnecessary

3.3 ADJUSTMENT MENU

3.3.1 Switches and Functions Used in Adjustments

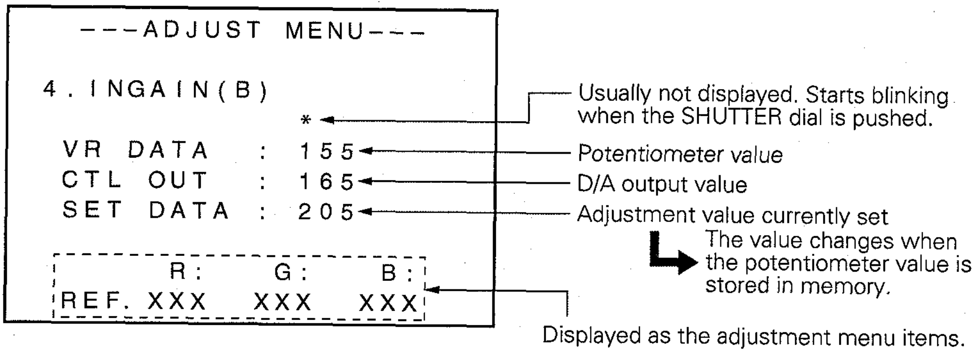
Most of the adjustment items employ microcomputer-controlled adjustments using electric potentiometers. The adjustment data is stored in EEPROM.

The switches used in the adjustments and their functions are as follows.

- STATUS button : Press to start or exit from the adjustment menu.
- EDIT SEARCH +, EDIT SERCH – : Press to select the adjustment item.
- SHUTTER dial (rotate) : Rotate to adjust the selected item.
- SHUTTER dial button (push in) : Press to start an adjustment and store the adjustment value in memory.

3.3.2 Procedure

(1) Turn the power ON, while holding the EDIT SEARCH + and EDIT SEARCH – buttons
(2) When the power is ON, press the STATUS button to display the ADJUST MENU.
(3) Push the SHUTTER dial button so that "*" blinks, and rotate the SHUTTER dial to the specified value while observing the designated TP and measuring instrument. (In this mode, SHUTTER dial rotate while holding the MENU button, then parameter value change quickly.)
(4) After completing the adjustment, push the SHUTTER dial button to delete the "*" and store the adjustment value in memory. (If do not push the SHUTTER dial button, adjustment value will not stored.)
(5) Press the EDIT SEARCH + and EDIT SEARCH – button to select the next item to adjust.
(6) Adjust for each item to do same procedure as above (3)(4).
(7) After completing all adjustments, press the STATUS button to exit the ADJUST MENU.
(8) To return to normal operation mode, turn the power OFF and ON again.(If did not re-start camera power, camera will be still in ADJUST MODE, so if press the MENU button then ADJUST MENU indicate on the screen and will not indicate normal menu screen.)



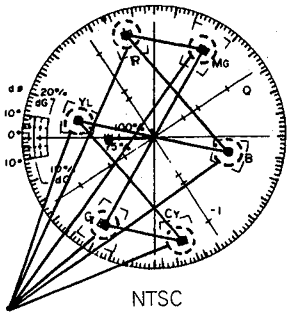
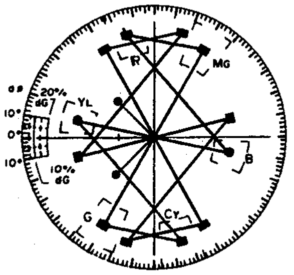
```
---ADJUST MENU---

4.INGAIN(B)
                  *
 VR DATA   :  155
 CTL OUT   :  165
 SET DATA  :  205

  R:      G:      B:
REF. XXX   XXX   XXX
```

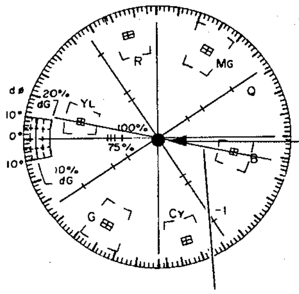
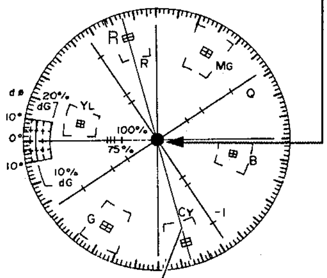
Usually not displayed. Starts blinking when the SHUTTER dial is pushed.
Potentiometer value
D/A output value
Adjustment value currently set
The value changes when the potentiometer value is stored in memory.
Displayed as the adjustment menu items.

On-screen adjustment menu

3.4 CAMERA ADJUSTMENTS

3.4.1 Camera adjustments

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (Ⓣ) Adjustment level (☆)	Adjustment procedure
1	FH adjustment	Frequency counter	ADJUST MENU	◎ TP[FH] Rewrite PWB Ⓣ SHUTTER dial ☆ 6,750,000 ± 10Hz	(1) Press the EDIT SEARCH+/- button to select ADJUST MENU No.0, "FH".(Color bar signal will be output automatically) (2) Push the SHUTTER dial button so that "*" blinks, and then rotate the SHUTTER dial to adjust to the specified value.
2	ENCODER adjustment	Vectorscope Oscilloscope	ADJUST MENU	◎ On screen value Ⓣ SHUTTER dial ☆ "128" ◎ MONITOR OUT Ⓣ SHUTTER dial ☆ All the points of the color bar signal should be within the ⊞ marks of the vectorscope.	(1) Press the EDIT SEARCH+/- button to select ADJUST MENU No."1."ENCODER" . (2) Make sure to confirm the Onscreen "SET DATA" value should be specified level. (3) Press the EDIT SEARCH+/- button to select ADJUST MENU No.2."CHROMA LEVEL". (4) Rotate the SHUTTER dial to adjust to the specified value.
	 dB 20% dG 10° 0° 10° 10% dG YL R MG Q B 100% 75% CY -I G NTSC Adjust so that all the spots are located inside the ⊞ marks.			 dB 20% dG 10° 0° 10° 10% dG YL R MG B CY G PAL	
				◎ MONITOR OUT Burst level Ⓣ 0.286 ± 0.015Vp-p	* If did not prepare Vectorscope, use oscilloscope and adjust to the value as Left.
3	SETUP_OFF adjustment	Oscilloscope	ADJUST MENU	◎ MONITOR OUT Ⓣ SHUTTER dial ☆ 1.00 ± 0.03Vp-p	(1) Press the EDIT SEARCH+/- button to select ADJUST MENU No.3."SETUP_OFF". (2) Rotate the SHUTTER dial to adjust to the specified value.

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (Ⓣ) Adjustment level (☆)	Adjustment procedure
4	BLACK adjustment	Vectorscope Lens cap  R MG Q d° 20% dG YL 10° 0° 100% 75% 10% dG B G CY -I B-YL axis	ADJUST MENU	◎ MONITOR OUT Ⓣ SHUTTER dial ☆ Position the noise on the B-YL axis at the center of the Vectorscope.	(1) Press the EDIT SEARCH+/- button to select ADJUST MENU No.4."FPGA BLACK (B)". (2) Rotate the SHUTTER dial to adjust to the specified value.
				◎ MONITOR OUT Ⓣ SHUTTER dial ☆ Position the noise on the R-CY axis at the center of the Vectorscope.	(3) Then, Press the EDIT SEARCH+/- button to select ADJUST MENU No.5."FPGA BLACK (R)". (4) Rotate the SHUTTER dial to adjust to the specified value.
		Oscilloscope Lens cap  R MG Q d° 20% dG YL 10° 0° 100% 75% 10% dG B G CY -I R-CY axis		◎ MONITOR OUT Ⓣ SHUTTER dial ☆ 0.053 ± 0.007V	(5) Then, press the EDIT SEARCH+/- button to select ADJUST MENU No.6."MASTER BLACK". (6) Rotate the SHUTTER dial to adjust black level to the specified value.
		Oscilloscope Lens cap		◎ CHROMA signal from Y/C output ☆ Less than 0.03Vp-p	(7) Check the CHROMA signal (from Y/C output) to confirm that the carrier leakage should be specified level.
5	IN GAIN adjustment	Gray scale chart (just scanned) Vectorscope	ADJUST MENU	◎ On screen value (Gch Ref) Ⓣ Lens Iris ☆ "280 ± 5"	(1) Press the EDIT SEARCH+/- button to select ADJUST MENU No.7."IN GAIN (G)". (2) Shooting the Gray scale chart, and adjust the lens iris so that the Gch Ref DATA display is specified value.
				◎ MONITOR OUT Ⓣ SHUTTER dial ☆ Position the noise on the R-CY axis at the center of the Vectorscope.	(3) Press the EDIT SEARCH+/- button to select ADJUST MENU No.7."IN GAIN (R)". (4) Rotate the SHUTTER dial to adjust to the specified value.
				◎ MONITOR OUT Ⓣ SHUTTER daial ☆ Position the noise on the B-YL axis at the center of the Vectorscope.	(5) Press the EDIT SEARCH+/- button to select ADJUST MENU No.7."IN GAIN (B)". (6) Rotate the SHUTTER dial to adjust to the specified value.
				◎ CHROMA signal from Y/C output ☆ Less than 0.03Vp-p	(7) Check the CHROMA signal (from Y/C output) to confirm that the carrier leakage should be specified level.

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (Ⓣ) Adjustment level (☆)	Adjustment procedure
6	FLARE-2 adjustment	Gray scale char (just scanned) oscilloscope	ADJUST MENU	◎ On screen value Ⓣ Lens iris ☆ 528 ± 10 (Gch Ref DATA)	(1) Press the EDIT SEARCH+/- button to select ADJUST MENU No.12. "MASTER FLARE". (2) Rotate the SHUTTER dial to adjust the data value set to "10". (3) Then, adjust the Lens iris so that the G ch Ref DATA display is specified value.
7	FLARE-2 adjustment	Oscilloscope Gray scale chart (just scanned)	ADJUST MENU	◎ MONITOR OUT Ⓣ SHUTTER dial ☆ Minimize window black carrier leakage.	(1) Press the EDIT SEARCH+/- button to select ADJUST MENU No.10."FPGA FLARE (R)". (2) Rotate the SHUTTER dial to adjust to minimize the window black carrier leak.
				◎ MONITOR OUT Ⓣ SHUTTER dial ☆ Minimize window black carrier leakage.	(3) Press the EDIT SEARCH+/- button to select ADJUST MENU No.10."FPGA FLARE (B)". (4) Rotate the SHUTTER dial to adjust to minimize the window black carrier leak.
				◎ On screen value (Gch Ref) Ⓣ Lens iris ☆ 280 ± 5	(5) Adjust the lens iris so that the G ch Ref DATA display is specified value. (6) Adjust the lens iris so that the white signal level of the Gray scale chart is 100%.
				◎ CHROMA signal from Y/C output ☆ 0.03Vp-p	(7) Then, Check the CHROMA signal (from Y/C output) to confirm that the carrier leakage should be specified level.
8	BLACK Adjustment	Vectorscope Gray scale chart	ADJUST MENU	◎ MONITOR OUT Ⓣ Lens iris ☆ 20% ~ 40% signal level	(1) Press the EDIT SEARCH+/- button to select ADJUST MENU No.13. "LOLUX BLACK (B)". (2) Adjust the lens iris so that the video signal level is specified level.
				◎ MONITOR OUT Ⓣ SHUTTER dial ☆ Position the noise on the B-YL axis at the center of the Vectorscope	(3) Rotate the SHUTTER dial to adjust to the specified value.
				◎ MONITOR OUT Ⓣ SHUTTER dial ☆ Position the noise on the R-CY axis at the center of the Vectorscope.	(4) Press the EDIT SEARCH+/- button to select ADJUST MENU No.14."LOLUX BLACK (R)". (5) Rotate the SHUTTER dial to adjust to the specified value.

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (Ⓣ) Adjustment level (☆)	Adjustment procedure
9	LOLUX MASTER BLACK adjustment	Oscilloscope Gray scale chart	ADJUST MENU	◎ On screen value Ⓣ SHUTTER dial ☆ "10" ☆ Pedestal level or more	(1) Press the EDIT SEARCH+/- button to select ADJUST MENU No.15."LOLUX MASTER BLACK". (2) Rotate the SHUTTER dial to adjust to the specified value. (3) Confirm the first step signal level of the Gray scale chart should be pedestal level or more. (4) If the signal level would be under pedestal level, yhen rotate the SHUTTER dial to adjust it to the specified value.

3.4.2 AUDIO adjustment

Audio adjustments are required to input the test signal from LINE input.
All switches and VR's should be set the position as below table.

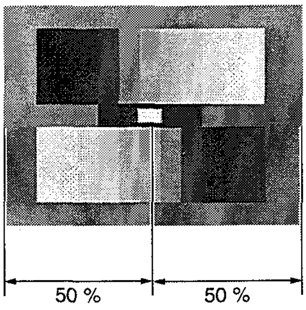
AUDIO INPUT : LINE
AUDIO INPUT : REAR
AUDIO SELECT : MANUAL
WIND CUT (MENU) : OFF
CH-1 FRONT VR (MENU) : DISABLE
AUDIO MODE (MENU) : 48k
AUDIO LEVEL CH-1 (FRONT) : MAX
AUDIO REF.LEVEL (MENU) : –20dB

1	INPUT LEVEL adjustment	Audio tester 1KHz/+4dBs	Camera mode	◎ TP13 (CH-1) [ALS PWB] TP14(CH-2) [ALS PWB] Ⓣ VR1 (CH-1) VR2 (CH-2) ☆ -22±0.5dBs	(1) Input the test signal (1KHz/+4dBs) to the LINE input, adjust the adjustment point to the specified level.
2	EE output level adjustment	Audio tester 1KHz/+4dBs	Camera mode	◎ LINE OUT Ⓣ VR501 (CH-1) VR503 (CH-2) ☆ -8±0.5dBs	(1) This adjustment item should be do after complete the INPUT LEVEL adjustment. (2) Input the test signal (1KHz/+4dBs) to the LINE input, adjust the adjustment point to the specified level.
3	Playback output level adjustment	Audio tester 1KHz/+4dBs	VTR mode (PLAY) Standard tape (MC-1 or MC-2)	◎ LINE OUT Ⓣ VR502 (CH-1) VR504 (CH-2) ☆ -8±0.5dBs	(1) Play back test tape which is recorded standard test signal, then adjust the adjustment point to specified level.
4	Audio level meter adjustment	1KHz/+4dBs	Camera mode LCD should be Spread indication	◎ LCD MONITOR Ⓣ VR506 (CH-1) VR507 (CH-2) ☆ CTL DATA should be "275±1"	(1) This adjustment item should be do after complete the INPUT LEVEL adjustment. (2) Input the test signal (1KHz/+4dBs) to the LINE input, adjust the adjustment point to the specified level.

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (ⓣ) Adjustment level (☆)	Adjustment procedure

3.4.3 MONITOR LCD adjustment

For the MONITOR LCD adjustment, the following adjustment are required only. Other adjustment items should be default value.

1	COMMON DC adjustment		ADJUST MENU	◎ MONITOR LCD ⓣ SHUTTER dial ☆ Minimize the flicker	(1) Press the EDIT SEARCH+/- button to select ADJUST MENU No.48,"COMMON DC". (2) Set the MONITOR LCD to field invert mode, rotate the SHUTTER dial to adjust to the specified level.
2	VCO adjustment		ADJUST MENU	◎ MONITOR LCD ⓣ SHUTTER dial ☆ Most stable point for monitor screen	(1) Press the EDIT SEARCH+/- button to select ADJUST MENU No.50."VCO FINE". (2) Rotate the SHUTTER dial to adjust to the specified level.
3	H-POSITION adjustment	Gray scale chart  	ADJUST MENU	◎ MONITOR LCD ⓣ SHUTTER dial ☆ Screen centering	(1) Press the EDIT SEARCH+/- button to select ADJUST MENU No.53,"H POSITION". (2) Shooting the Grey scale chart and rotate the SHUTTER dial to adjust the white part in the middle of Gray scale so that it is at the center of the screen.

3.4.4 DVC UNIT ADJUSTMENTS

Preparation : Connect the Rewrite board (CK453800B) to CN801 on the DBCD board. Connect it in the orientation shown in Fig. 3.4, so that the test point surface (component mounting surface) faces upward.

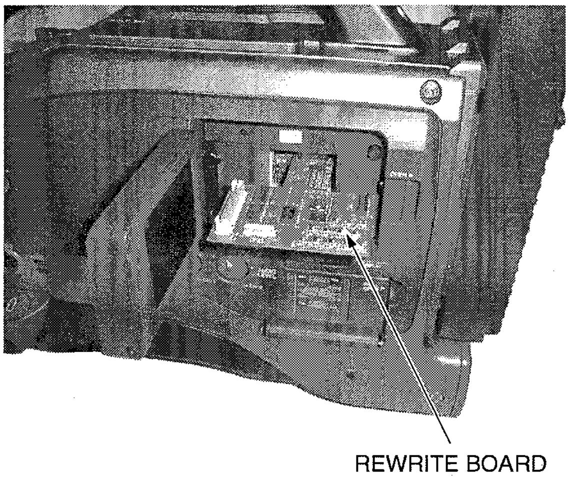
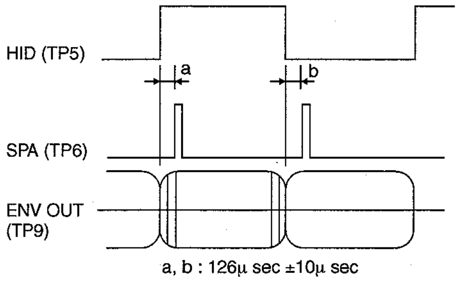
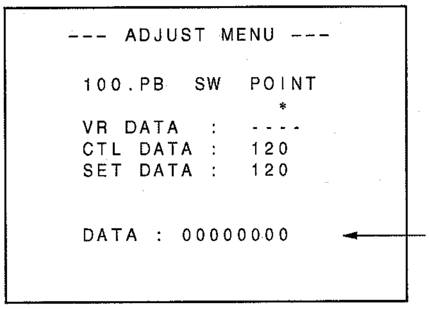


Fig. 3.4 Rewrite board connection method

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (ⓣ) Adjustment level (☆)	Adjustment procedure
1	PB switching point adjustment  HID (TP5) a b SPA (TP6) ENV OUT (TP9) a, b : 126µ sec ±10µ sec	Alignment tape, NTSC : MC-1, PAL : MC-2 color bar recorded section	• PLAY • ADJUST MENU, 100. PB SW POINT	◎TP6 (SPA) ◎TP9 (ENV OUT) TRIG: TP5 (HID) GND: TP1 (GND) [Rewrite board] ⓣ Auto adjustment ☆a, b = 126 µs sec ± 10 µs sec	(1) Press the EDIT SEARCH +/– button to select ADJUST MENU No. 100, "PB SW POINT". (2) Play the alignment tape. Ensure that the compatibility adjustment has been performed and the FM waveform at TP9 (ENV OUT) is flat and stable. (3) Press the SHUTTER dial to cause the * marking to blink. The PB switching point will be adjusted automatically.

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (Ⓣ) Adjustment level (☆)	Adjustment procedure
					(4) Measure TP6 (SPA) by triggering TP5 (HID) and confirm that the values a and b are within the specified ranges. (5) Rotate the SHUTTER dial to display the adjustment data in the "DATA:" field. (The DATA value should not be 00000000 or FFFFFFFF.) (6) Press the [SET] button so that the * marking stops blinking. Now the adjustment is complete. **NOTE:** **Make sure that the data value is displayed before pressing the SHUTTER dial. If this adjustment is completed before the data value is displayed the adjustment value will not be put into the memory.**

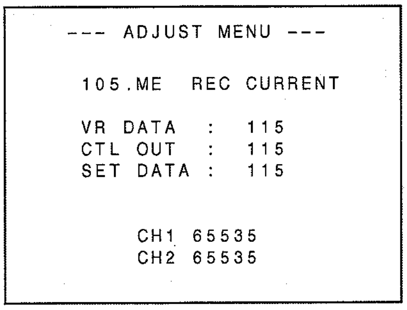


```
--- ADJUST MENU ---

100.PB  SW  POINT
              *
VR DATA  :  ----
CTL DATA :  120
SET DATA :  120


DATA : 00000000
```

Rotate the SHUTTER dial to display data.

After displaying the data, press the SHUTTER dial to complete the adjustment.

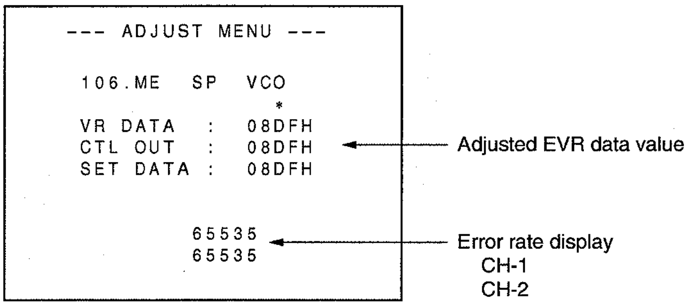
No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (Ⓣ) Adjustment level (☆)	Adjustment procedure
2	ME recording current adjustment		• REC • ADJUST MENU, 105. ME REC CURRENT	◎ MONITOR LCD Ⓣ SHUTTER dial ☆ SET DATA = 115	(1) Press the EDIT SEARCH +/– button to select ADJUST MENU No. 105, "ME REC CURRENT" and enter REC mode. (2) Check the set data so that the value is "115" (Recording current is approx. 360 mVp-p). If not, adjust the value to "115" (3) Press the SHUTTER dial to store the adjustment data.



```
--- ADJUST MENU ---

105.ME  REC  CURRENT

VR DATA  :  115
CTL OUT  :  115
SET DATA :  115


    CH1  65535
    CH2  65535
```

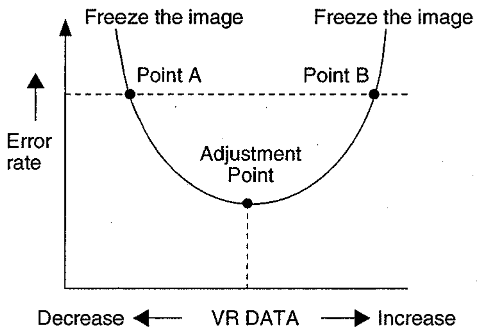
Recording the current adjustment

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⊕) Adjustment level (☆)	Adjustment procedure
3	ME SP VCO offset adjustment (Error rate adjustment)	Recording tape (brand-new tape)	• Self-REC/ PLAY • ADJUST MENU, 106. ME SP VCO	◎ MONITOR LCD ⊕ SHUTTER dial ☆ Minimum error rate, which should be = 498 (per CH). (Viterbi : OFF)	**(Notes)** • **Be sure to use a brand-new tape for the ME SP VCO offset adjustment.** • **Be sure to clean the tape with a head cleaning tape before adjustment.** • **The error rate should be measured with the Viterbi OFF. The Viterbi is switched OFF automatically when the adjustment mode is entered.** • **The error rate value is displayed in decimal form.** (1) Record a moving image in advance on the recording tape. (2) Press the EDIT SEARCH +/– button select to ADJUST MENU No. 106, "ME SP VCO". (3) Play the recorded tape, rotate the SHUTTER dial to minimize the adjustment EVR data and freeze the image. (4) Increase the EVR data gradually until the block noise disappears. The current value is the adjustment value "A". (5) Play the recorded tape and rotate the SHUTTER dial in order to maximize the EVR data and freeze the image. (6) Decrease the EVR data gradually until the block noise disappears. The current value is the adjustment value "B". (7) Calculate the intermediate value between the "A" and "B" values. (Since the adjustment values are hex numbers, use a functional computation-capable calculator or the PC calculator provided in Accessories.) C = (A + B)/2 Set value "C" as the adjustment value. (8) Play the recorded tape again, ensure that the error rate is no more than the specified value. (9) Press the SHUTTER dial to store the adjustment data.



```
--- ADJUST MENU ---

106.ME  SP  VCO
             *
VR DATA   :  08DFH
CTL OUT   :  08DFH
SET DATA  :  08DFH


      65535
      65535
```

SP VCO Offset Menu



Consept of the adjustment

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (Ⓣ) Adjustment level (☆)	Adjustment procedure
4	FS PLL 48 kHz adjustment	No input. Frequency counter	EE ADJUST MENU,110. FS PLL 48 kHz	◎TP4 (FS PLL) GND: TP1 (GND) [Rewrite board] Ⓣ SHUTTER dial ☆12.288 MHz ± 0.1 MHz	(1) Press the EDIT SEARCH +/– button to select ADJUST MENU No. 110, "FS PLL 48 kHz". (2) Adjust the frequency to the specified level. (3) Press the SHUTTER dial to store the adjustment data.
5	FS PLL 44.1 kHzHz adjustment	No input Frequency counter	EE ADJUST MENU, 111. FS PLL 44.1 kHz	◎TP4 (FS PLL) GND: TP1 (GND) [Rewrite board] Ⓣ SHUTTER dial ☆11.2896 MHz ± 0.1 MHz	(1) Press the EDIT SEARCH +/– button to select ADJUST MENU No. 111, "FS PLL 44.1 kHz". (2) Adjust the frequency to the specified level. (3) Press the SHUTTER dial to store the adjustment data.
6	FS PLL 32 kHz adjustment	No input.	EE ADJUST MENU,112. FS PLL 32 kHz	◎None Ⓣ SHUTTER dial ☆Value adjusted in No. 110, "FS PLL 48 kHz" in item 4 above.	(1) Press the EDIT SEARCH +/– button to select ADJUST MENU No. 112, "FS PLL 32 kHz". (2) Adjust to the same value as the FS PLL 48 kHz adjustment value. (Setting range: 0 to 255) (3) Press the SHUTTER dial to store the adjustment data.
7	27 MHz VCO center frequency adjustment	No input. Frequency counter	EE ADJUST MENU,113. 27 MHz VCO	◎TP7 (MAIN VCO) GND: TP1 (GND) [Rewrite board] Ⓣ SHUTTER dial ☆13.5 MHz ± 0.1 MHz	(1) Press the EDIT SEARCH +/– button to select ADJUST MENU No. 113, "27 MHz VCO". (2) Adjust the frequency to the specified level. (3) Press the SHUTTER dial to store the adjustment data.

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SECTION 4
CHARTS AND DIAGRAMS

■ SCHEMATIC DIAGRAM NOTES

- Schematic safety precaution
  ⚠ Parts are safety related parts.
  When replacing them, be sure to use the specified parts.
- Unit of value
  Unless otherwise specified
  1) Resistance is in Ω (1/6 W)
  2) Capacitance is in μF
  3) Inductance is in μH
- Expression of wiring

As the following circuit diagram is divided to print on some sheets, such an indication as the following is found in the case the wiring extends over two or more divided sections.

1) Circuit diagram divided into two or more sections:

Board	Board Name	Number of divided sections
05	DBCP	1/7 to 7/7
06	ALS	1/4 to 4/4
11	DV/CPU	1/4 to 4/4
12	MOA/DC	1/4 to 4/4
20	PSIF	1/2 to 2/2

2) Indication of wiring which extends to another section:
(Example) This indication that wiring extends to "3/3" of the diagram.

A) ——→ NTSC(L) TO 3/3
↑
Signal name

In the above case, the end of the wiring is connected to the "NTSC(L)" on the 3nd section of the diagram.

B) This indication that wiring extends to "sheet 7" of the diagram.
↓
Pg7
——▷ PB-H (1 To FPGA (7/7))
↑ ↓
Signal name The function of "sheet 7"

In the above case, the end of the wiring is connected to the "PB-H" on the "sheet 7" section of the diagram.

- Wiring of connector

(Example) CN9
1
2
FROM/To 06 REAR1
CN9 (Page 4-24)

In the above example, CN9 is connected with CN9 on 06 REAR1 board.

- Signal flow on the diagram
  The following allow marks indicate the specified signal paths respectively.
  ➡ : Recording or EE signal path
  ⇨ : Playback signal ptah
  ⇨ : Recording and Playback signal path
- Others

In regard of a board assembly whose circuit is composed of multilayered board patterns such 4- or 6-layered patterns, board patterns of the power supply lines and grounding lines are omitted in this section.

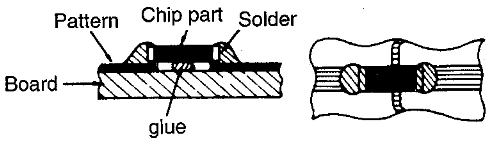
Note: For detail of each electrical part, refer to Section 6 "ELECTRICAL PARTS LIST" by it symbol number.

■ REPLACING SURFACE MOUNT "CHIP" COMPONENTS

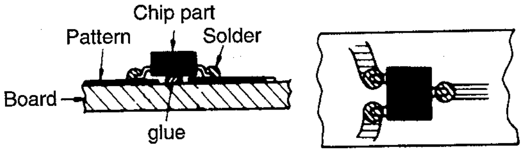
- Some resistors, shorting jumpers (0 resistance), ceramic capacitors, transistors, and diodes are chip parts. These chip parts cannot be reused after they are once removed.
- Chip resistors used in some circuits are of high precision type having little error in resistance.
  To demonstrate the full capacity of this set, place an order for proper parts referring to the diagrams and parts lists in the section 5.
- Soldering cautions:
  1) Do not apply heat for more than 3 seconds.
  2) Avoid using a rubbing stroke when soldering.
  3) Discard removed chips; do not reuse them.
  4) Supplementary cementing is not required.
  5) Use care not to scratch or otherwise damage the chips.

(1) Soldered condition of chip parts

- Resistors, capacitors, etc.

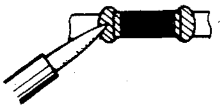


- Transistors, diodes, etc.

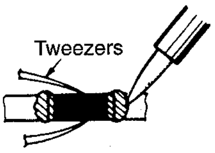


(2) Removing of chip parts

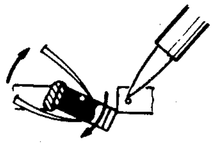
- Resistors, capacitors, etc.
  i) Melt solder at a side.



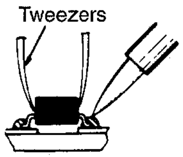
ii) Holding the chip with tweezers, melt solder at the other side.



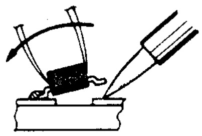
iii) Take off the chip in twisting and sliding motion.



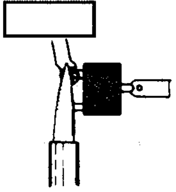
- Transistors, diodes, etc.
  - i) Melt solder at the side of single lead.



  - ii) Lift the unsolderd side upwards.

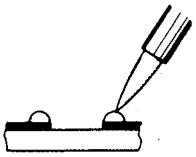


  - iii) Simultaneously melt solder at two leads of the other side and pull up the chip.

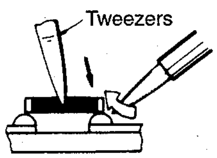


(3) Preheating and soldering of chip parts
Except transistors, make sure to preheat all chip parts, capacitors in particular, with a hot wind of 150°C approx. (of a hair dryer, etc.) for 2 minutes just before soldering, and immediately solder by a soldering iron of approx. 30 W.

(4) Attaching of chip parts
i) Heap up a proper amount of solder beforehand.



ii) Holding down a new chip by tweezers, solder it to the board by a soldering iron to melt solder from its lower part to the upper part (in the direction shown by a big arrow).

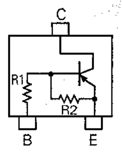


■ CHIP PARTS PIN ARRANGEMENT

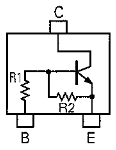
[1] Digital transistors

DTC 1 □□□□
① ②③

DTA 1 □□□□
DTB 1 □□□□
① ②③



(Top view)



(Top view)

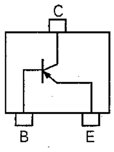
① Two digits show resistance of R1 in abbreviation.
43 : 4.7 kΩ
14 : 10 kΩ
24 : 22 kΩ
44 : 47 kΩ

② Roman letter show the resistive ratio between R1 and R2 in abbreviation.
E : R2/R1 = 1/1
Y : R2/R1 = 5/1
W : R2/R1 = 2/1
X : R2/R1 = 1/2
T : R2 is opened.

③ Symbol the shape of resistor in abbreviation.

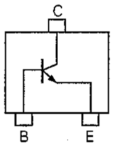
[2] Chip transistors and chip F.E.T.s

2SA □□□□
2SB □□□□



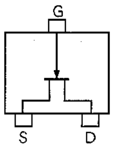
(Top view)

2SC □□□□
2SD □□□□



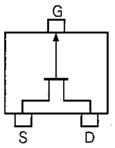
(Top view)

2SK □□□□



(Top view)

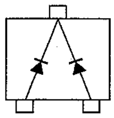
2SJ □□□□



(Top view)

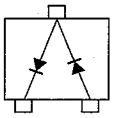
[3] Chip diodes

MA143A/MA742



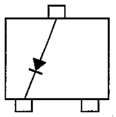
(Top view)

MA142WA



(Top view)

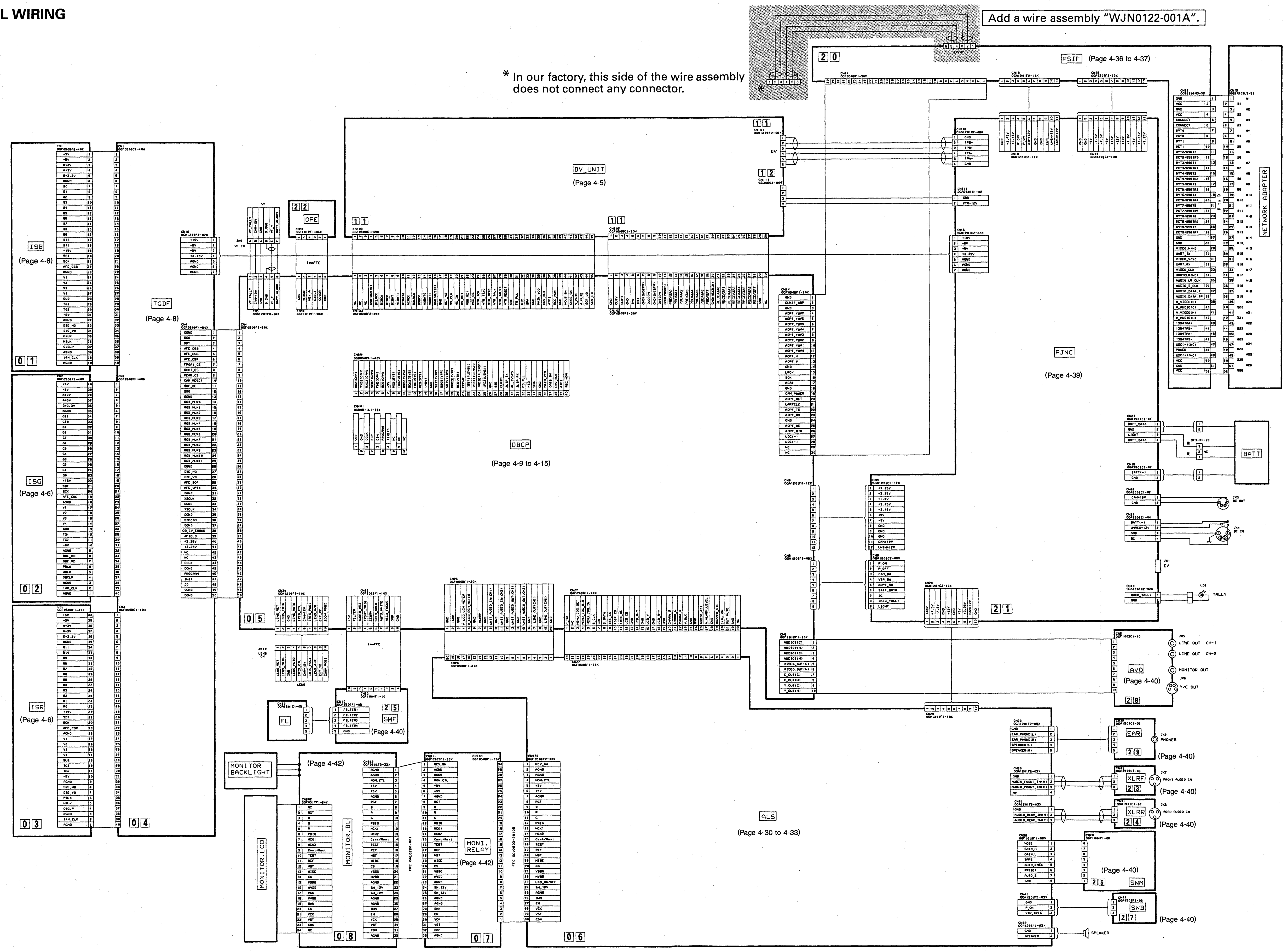
MA142A



(Top view)

SECTION 4
EXPLODED VIEWS AND PARTS LIST

4.2 OVERALL WIRING


Add a wire assembly "WJN0122-001A".

* In our factory, this side of the wire assembly does not connect any connector.

ISB
(Page 4-6)
01
ISG
(Page 4-6)
02
ISR
(Page 4-6)
03
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(Page 4-8)
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OPE
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MONITOR.BL
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DV
LINE OUT CH-1
LINE OUT CH-2
MONITOR OUT
Y/C OUT
PHONES
FRONT AUDIO IN
REAR AUDIO IN
DC OUT
DC IN

VTRモード時の補足説明

- ■ 本機では、VTRモード時に下記の操作がおこなえます。
  - ●MODEスイッチを上方に押して、VTRインジケーターを点灯させます。

バリアブルスロー再生

■ 停止、再生またはスチル時、EDIT SEARCH +ボタンを押すと、スロー再生します。
EDIT SEARCH −ボタンを押すと、巻き戻しスロー再生します。

バリアブルスロースピード

●EDIT SEARCH +ボタンを押すごとにFWD方向に速くなります。
× 0.1(SLOW+1) → × 0.2(SLOW+2) → × 0.5(SLOW+3) → × 1(FWD) → × 0.1(SLOW+1)..
●EDIT SEARCH −ボタンを押すごとにREV方向に速くなります。
× −0.1(SLOW−1) →× −0.2(SLOW−2) → × −0.5(SLOW−3) → × −1(REV) → × −0.1(SLOW−1)..
※ステータス画面には、(　)内の文字を表示します。

- ■ 通常再生モードにもどすときは、PLAYボタンを押します。
- ■ 停止するときは、STOPボタンを押します。
- ■ スロー再生時のコマ送り量は、80ページSTEP SLOW MODE項目によって選択することができます。

タイムコード表示について

■ EJECTまたは停止時、STOPボタンを1秒間長押しすると、DV端子からの入力タイムコードデータまたはユーザーズビットデータをステータス画面に表示します。
DTCG:DV端子からのタイムコードデータ
DUBG:DV端子からのユーザーズビットデータ
元のタイムコードおよびユーザーズビット表示にもどすときは、STOPボタンを押します。
(VTRを動作させた場合も通常タイムコードまたはユーザーズビット表示になります。)
※タイムコードおよびユーザーズビットの表示設定方法は、添付の取扱説明書 ☞64ページをお読みください。
※DV端子からの入力タイムコードおよびユーザーズビットは、記録されません。本機のタイムコードジェネレーターで発生するデータを記録します。
※DV端子からの入力信号を記録する場合、タイムコードの連続性を保つためTC GENE.スイッチをREGENモードにしてご使用ください。

メモ

上記機能は、レーティングラベルのモデル名の後に(A)と表示されているモデルのみ操作できます。

Supplementary Explanation of the VTR Mode

- ■ **This unit allows the following operations in the VTR mode.**
  - ● The VTR indicator lights when the MODE switch is pushed upward.

Variable Slow Playback

■ **During stop, playback or still playback, slow motion playback is effected by pressing the EDIT SEARCH + button. Pressing the EDIT SEARCH – button effects reverse slow motion playback.**

Variable Slow Playback

● Playback in FWD direction becomes faster each time the EDIT SEARCH + button is pressed.
× 0.1 (SLOW+1) → × 0.2 (SLOW+2) → × 0.5 (SLOW+3) → × 1 (FWD) → × 0.1 (SLOW+1) ..
● Playback in REV direction becomes faster each time the EDIT SEARCH – button is pressed.
× –0.1 (SLOW–1) → × –0.2 (SLOW–2) → × –0.5 (SLOW–3) → × –1 (REV) → × –0.1 (SLOW–1) ..
* **The characters indicated in parentheses ( ) are shown on the Status screen.**

- ■ **To return to the normal playback mode, press the PLAY button.**
- ■ **To stop, press the STOP button.**
- ■ **The amount of frames advanced in slow motion playback can be set in STEP SLOW MODE on page 80.**

Indication of the Time Code

■ **Pressing the STOP button for 1 second in the EJECT or stop mode displays the time code data or user's bit data input from the DV terminal on the Status screen.**
DTCG: The time code data from the DV terminal
DUBG: The user's bit data from the DV terminal
To return to display of the original time code or user's bit, press the STOP button.
(Display of the normal time code or user's bit is also restored by performing VTR operation.)
* For display setting method for the time code or user's bit, see the supplied instruction manual ☞page 64.
* The time code and user's bit input from the DV terminal are not recorded. The data generated by the camera's time code generator is recorded.
* To maintain the continuity of time code data, use with the TC GENE. switch set to REGEN mode when recording input signal from the DV terminal.
This does not apply to GY-DV5000E.

MEMO

The functions described above can only be operated in the case of a model whose model name is followed by the (A) indication on the rating label.

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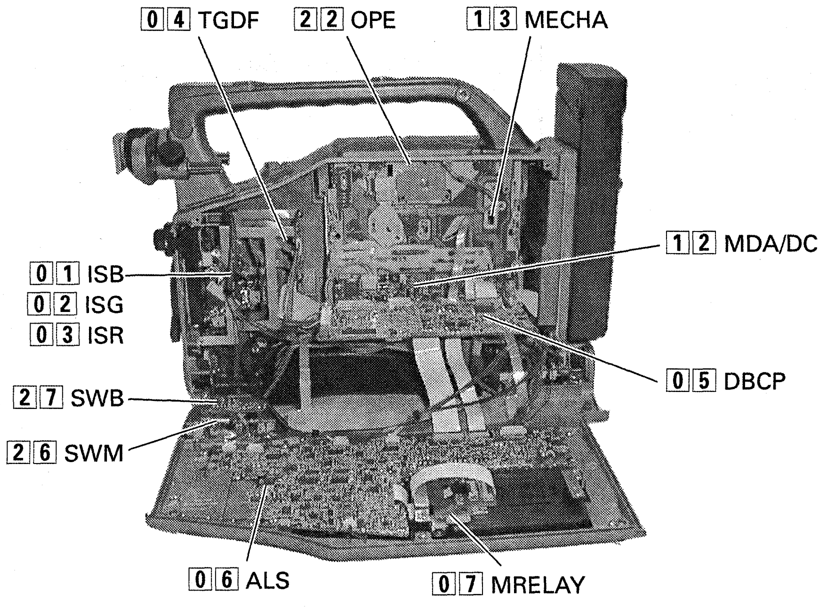
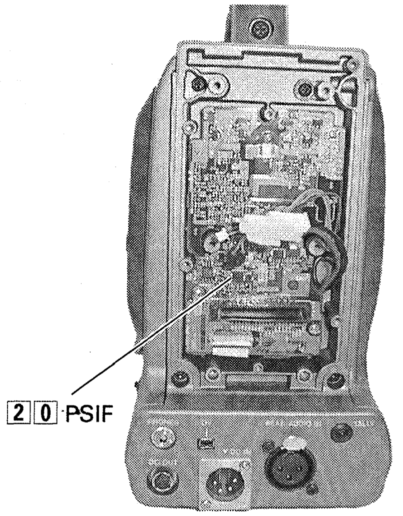
Printed in Japan
(S)

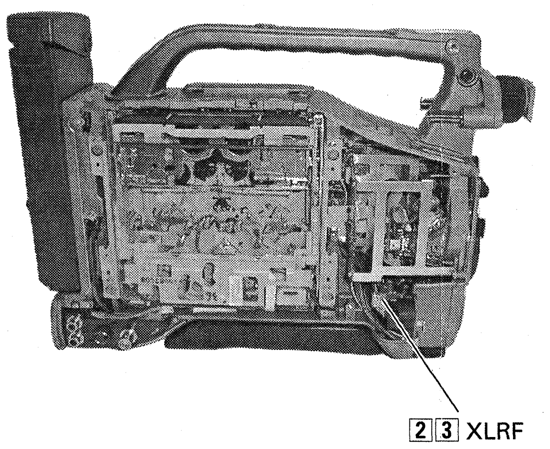
JVC
GY-DV5000U(A)/GY-DV5000E(A)/GY-DV5001E(A)/GY-DV5001EC(A)
No. HC001

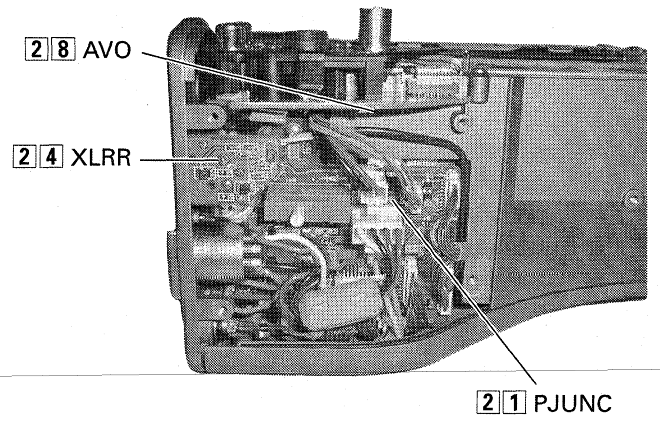
4.1 INDEX TO PAGES OF MAIN BOARDS AND CIRCUIT BOARD LOCATION

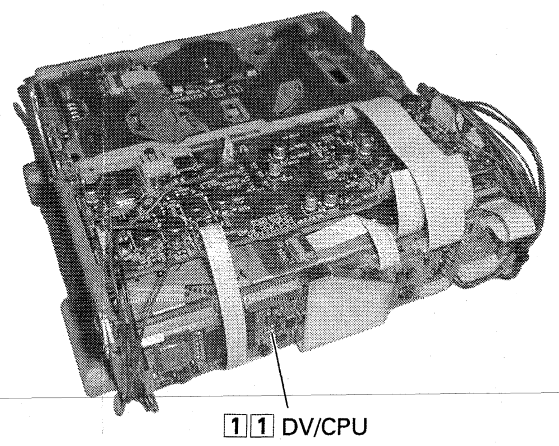
4.1.1 Circuit board location


04 TGDF
22 OPE
13 MECHA
12 MDA/DC
01 ISB
02 ISG
03 ISR
05 DBCP
27 SWB
26 SWM
06 ALS
07 MRELAY






28 AVO
24 XLRR
21 PJUNC



Board No.	Board Name	Page of diagram	
		Schematic diagram	Circuit board
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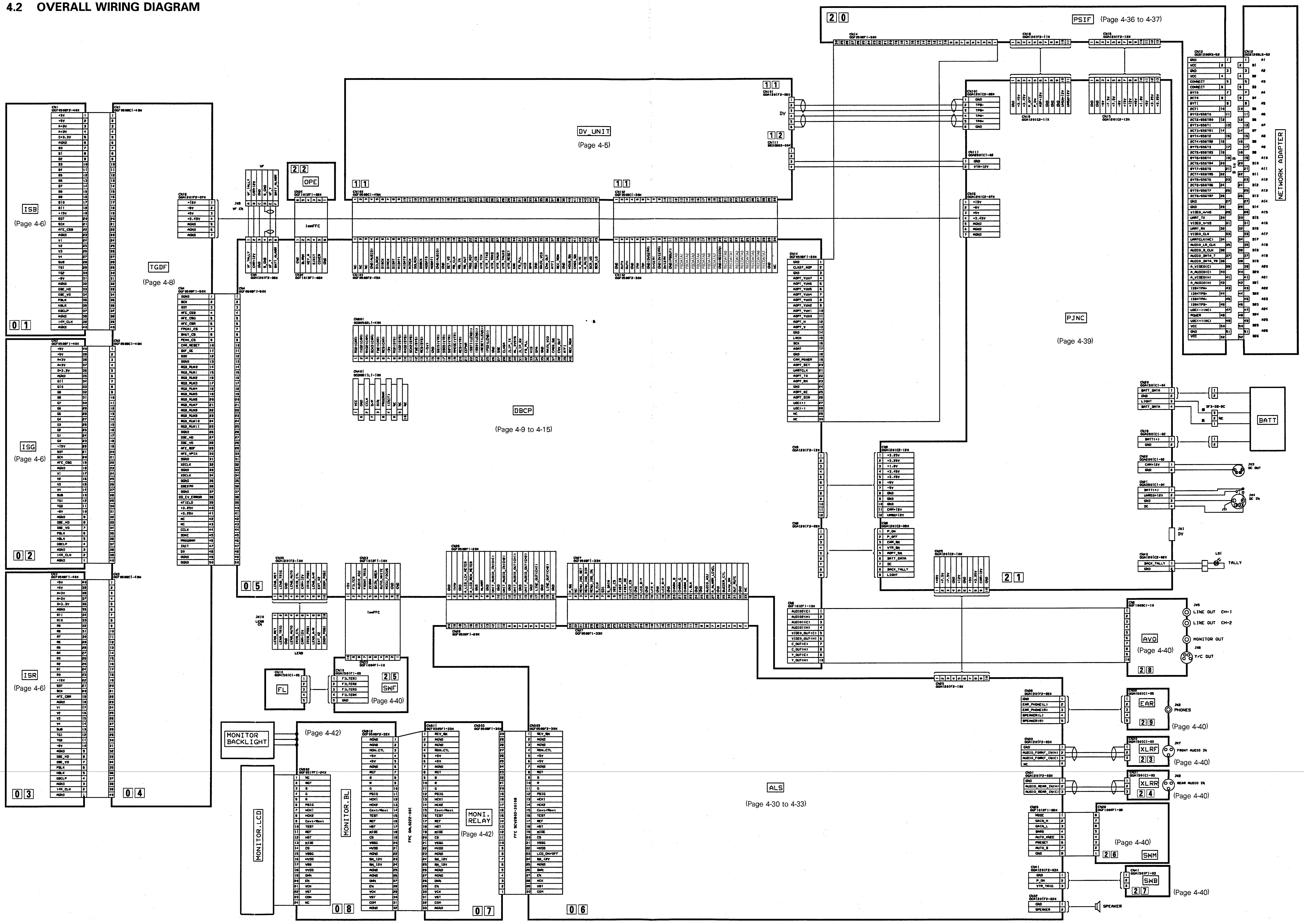
02	ISG	4-6	4-7
03	ISR	4-6	4-7
04	TGDF	4-8	4-7
05	DBCP	4-9 to 4-15	4-16, 4-17
06	ALS	4-30 to 4-33	4-34, 4-35
07	M.RELAY	4-42	4-43
08	M.BL	4-42	4-43
11	DV/CPU	4-18 to 4-21	4-22
12	MDA/DC	4-24 to 4-27	4-23
13	MECHA	4-28	4-29

Board No.	Board Name	Page of diagram	
		Schematic diagram	Circuit board
14	MECHA CONN	4-28	4-29
20	PS IF	4-36, 4-37	4-38
21	PJNC	4-29	4-38
22	OPE	4-40	4-41
23	XLRF	4-40	4-41
24	XLRR	4-40	4-41
25	SWF	4-40	4-41
26	SWM	4-40	4-41
27	SWB	4-40	4-41
28	AVO	4-40	4-41
29	EAR	4-40	4-41

4.2 OVERALL WIRING DIAGRAM


20
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OPE
VF
11
11
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TGDF
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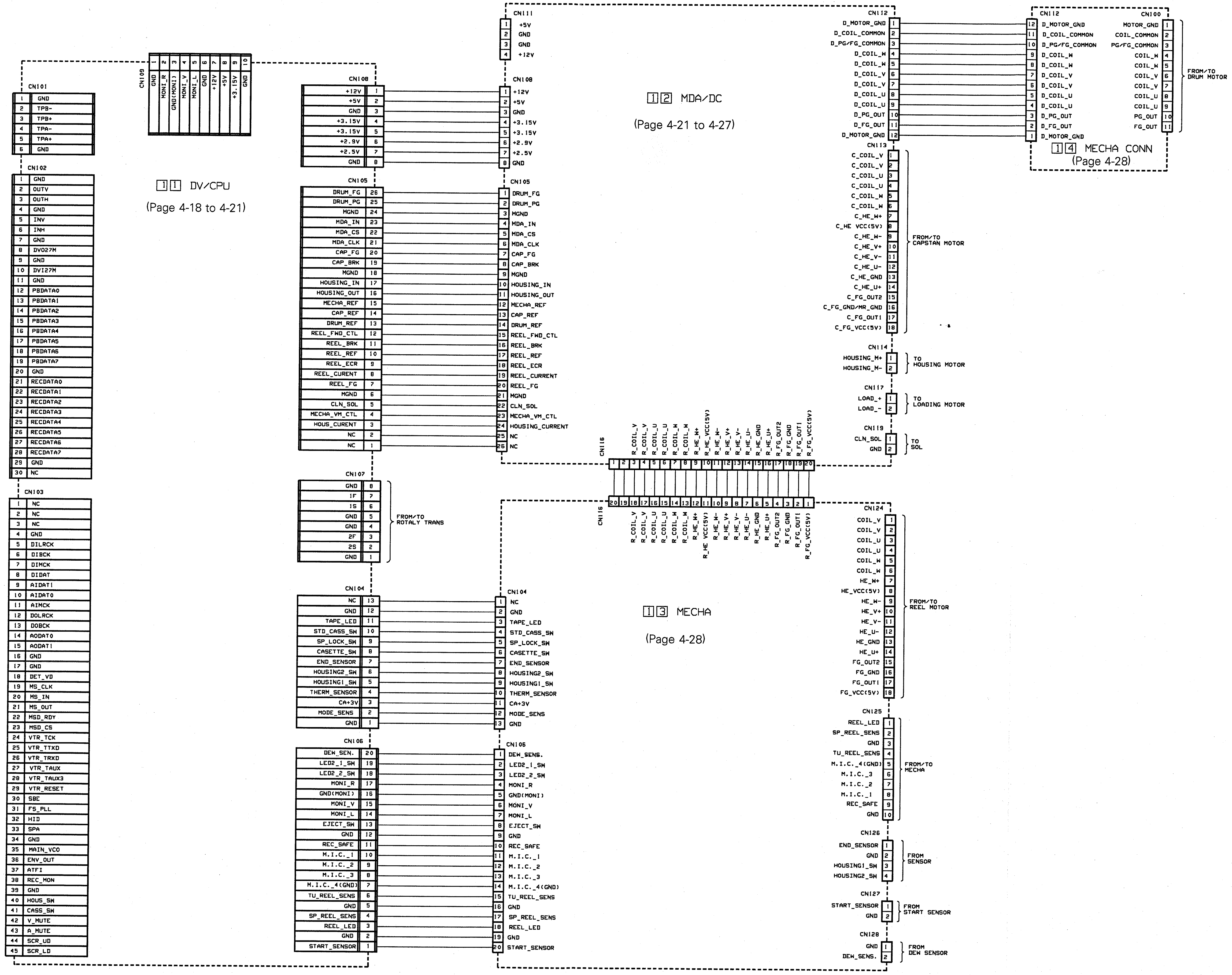
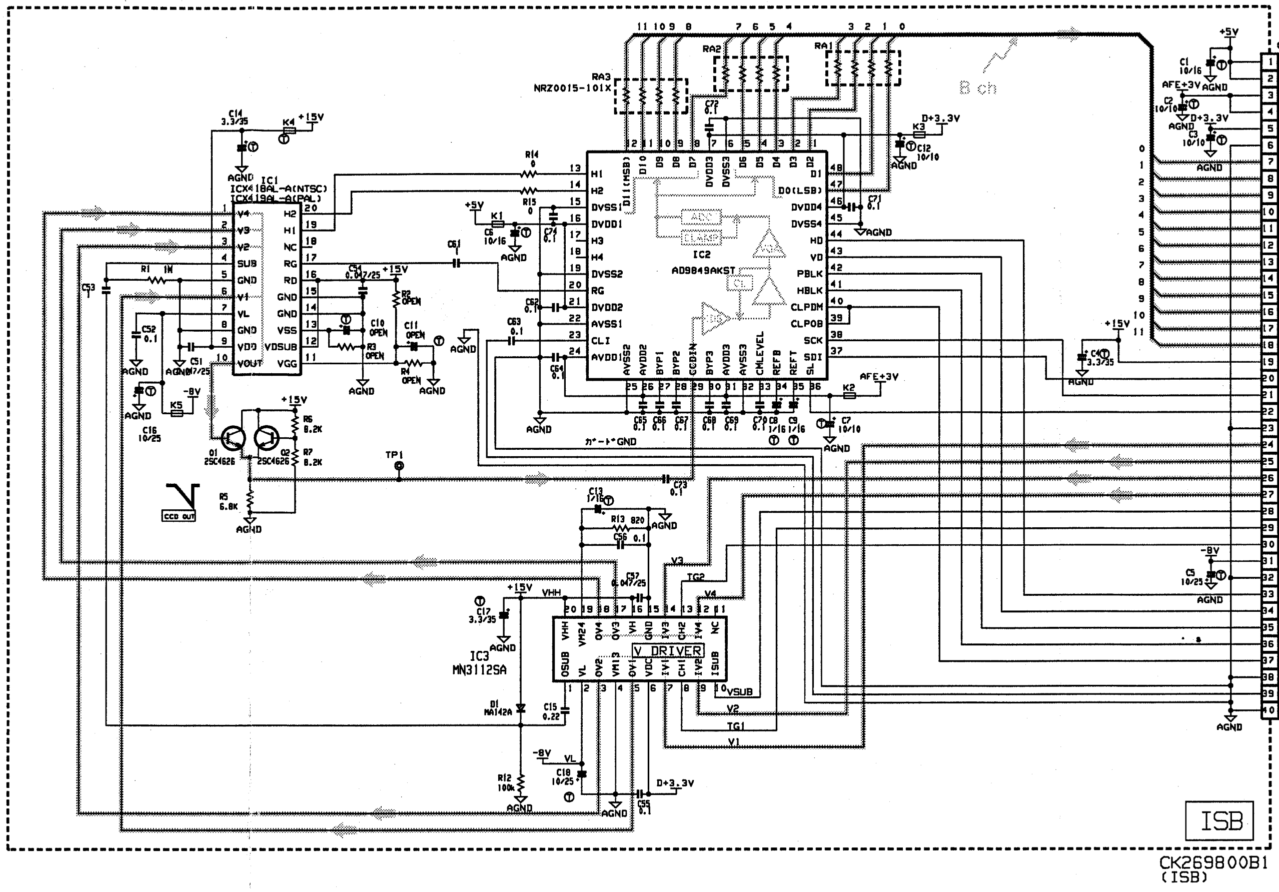
XLRR
REAR AUDIO IN
24
(Page 4-40)
(Page 4-40)
26
SWM
SHB
27
(Page 4-40)
SPEAKER

4.3 DV UNIT OVERALL WIRING DIAGRAM

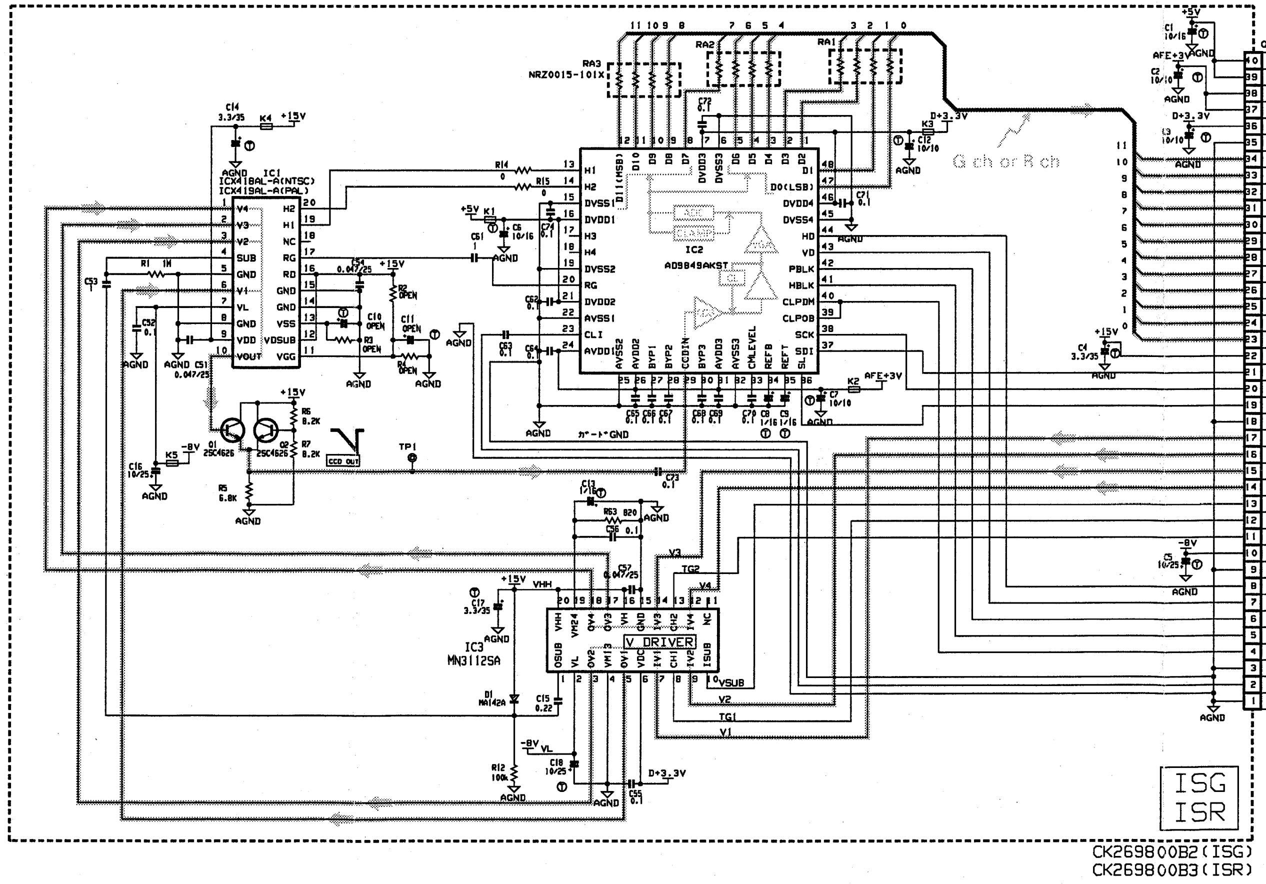

1-1 DV/CPU
(Page 4-18 to 4-21)
1-2 MDA/DC
(Page 4-21 to 4-27)
1-3 MECHA
(Page 4-28)
1-4 MECHA CONN
(Page 4-28)
CN101
1 GND
2 TPB-
3 TPB+
4 TPA-
5 TPA+
6 GND
CN102
1 GND
2 OUTV
3 OUTH
4 GND
5 INV
6 INH
7 GND
8 DVO27M
9 GND
10 DVI27M
11 GND
12 PBDATA0
13 PBDATA1
14 PBDATA2
15 PBDATA3
16 PBDATA4
17 PBDATA5
18 PBDATA6
19 PBDATA7
20 GND
21 RECDATA0
22 RECDATA1
23 RECDATA2
24 RECDATA3
25 RECDATA4
26 RECDATA5
27 RECDATA6
28 RECDATA7
29 GND
30 NC
CN103
1 NC
2 NC
3 NC
4 GND
5 DILRCK
6 DIBCK
7 DIMCK
8 DIDAT
9 AIDAT1
10 AIDAT0
11 AIMCK
12 DOLRCK
13 DOBCK
14 AODAT0
15 AODAT1
16 GND
17 GND
18 DET_VD
19 MS_CLK
20 MS_IN
21 MS_OUT
22 MSD_RDY
23 MSD_CS
24 VTR_TCK
25 VTR_TTXD
26 VTR_TRXD
27 VTR_TAUX
28 VTR_TAUX3
29 VTR_RESET
30 SBE
31 FS_PLL
32 HID
33 SPA
34 GND
35 MAIN_VCO
36 ENV_OUT
37 ATFI
38 REC_MON
39 GND
40 HOUS_SW
41 CASS_SW
42 V_MUTE
43 A_MUTE
44 SCR_UD
45 SCR_LD
CN109
1 GND
2 MONI_R
3 GND(MONI)
4 MONI_V
5 MONI_L
6 GND
7 +12V
8 +5V
9 +3.15V
10 GND
CN108
1 +12V
2 +5V
3 GND
4 +3.15V
5 +3.15V
6 +2.9V
7 +2.5V
8 GND
CN105
1 DRUM_FG
2 DRUM_PG
3 MGND
4 MDA_IN
5 MDA_CS
6 MDA_CLK
7 CAP_FG
8 CAP_BRK
9 MGND
10 HOUSING_IN
11 HOUSING_OUT
12 MECHA_REF
13 CAP_REF
14 DRUM_REF
15 REEL_FWD_CTL
16 REEL_BRK
17 REEL_REF
18 REEL_ECR
19 REEL_CURRENT
20 REEL_FG
21 MGND
22 CLN_SOL
23 MECHA_VM_CTL
24 HOUSING_CURRENT
25 NC
26 NC
CN107
8 GND
7 1F
6 1S
5 GND
4 GND
3 2F
2 2S
1 GND
FROM/TO ROTALY TRANS
CN104
1 NC
2 GND
3 TAPE_LED
4 STD_CASS_SW
5 SP_LOCK_SW
6 CASETTE_SW
7 END_SENSOR
8 HOUSING2_SW
9 HOUSING1_SW
10 THERM_SENSOR
11 CA+3V
12 MODE_SENS
13 GND
CN106
1 DEW_SENS.
2 LED2_1_SW
3 LED2_2_SW
4 MONI_R
5 GND(MONI)
6 MONI_V
7 MONI_L
8 EJECT_SW
9 GND
10 REC_SAFE
11 M.I.C._1
12 M.I.C._2
13 M.I.C._3
14 M.I.C._4(GND)
15 TU_REEL_SENS
16 GND
17 SP_REEL_SENS
18 REEL_LED
19 GND
20 START_SENSOR
CN111
1 +5V
2 GND
3 GND
4 +12V
CN112
1 D_MOTOR_GND
2 D_COIL_COMMON
3 D_PG/FG_COMMON
4 D_COIL_W
5 D_COIL_W
6 D_COIL_V
7 D_COIL_V
8 D_COIL_U
9 D_COIL_U
10 D_PG_OUT
11 D_FG_OUT
12 D_MOTOR_GND
CN100
1 MOTOR_GND
2 COIL_COMMON
3 PG/FG_COMMON
4 COIL_W
5 COIL_W
6 COIL_V
7 COIL_V
8 COIL_U
9 COIL_U
10 PG_OUT
11 FG_OUT
FROM/TO DRUM MOTOR
CN113
1 C_COIL_V
2 C_COIL_V
3 C_COIL_U
4 C_COIL_U
5 C_COIL_W
6 C_COIL_W
7 C_HE_W+
8 C_HE VCC(5V)
9 C_HE_W-
10 C_HE_V+
11 C_HE_V-
12 C_HE_U-
13 C_HE_GND
14 C_HE_U+
15 C_FG_OUT2
16 C_FG_GND/MR_GND
17 C_FG_OUT1
18 C_FG_VCC(5V)
FROM/TO CAPSTAN MOTOR
CN114
1 HOUSING_M+
2 HOUSING_M-
TO HOUSING MOTOR
CN117
1 LOAD_+
2 LOAD_-
TO LOADING MOTOR
CN119
1 CLN_SOL
2 GND
TO SOL
CN116
1 R_COIL_V
2 R_COIL_V
3 R_COIL_U
4 R_COIL_U
5 R_COIL_W
6 R_COIL_W
7 R_HE_W+
8 R_HE_VCC(5V)
9 R_HE_W-
10 R_HE_V+
11 R_HE_V-
12 R_HE_U-
13 R_HE_GND
14 R_HE_U+
15 R_FG_OUT2
16 R_FG_GND
17 R_FG_OUT1
18 R_FG_VCC(5V)
CN124
1 COIL_V
2 COIL_V
3 COIL_U
4 COIL_U
5 COIL_W
6 COIL_W
7 HE_W+
8 HE_VCC(5V)
9 HE_W-
10 HE_V+
11 HE_V-
12 HE_U-
13 HE_GND
14 HE_U+
15 FG_OUT2
16 FG_GND
17 FG_OUT1
18 FG_VCC(5V)
FROM/TO REEL MOTOR
CN125
1 REEL_LED
2 SP_REEL_SENS
3 GND
4 TU_REEL_SENS
5 M.I.C._4(GND)
6 M.I.C._3
7 M.I.C._2
8 M.I.C._1
9 REC_SAFE
10 GND
FROM/TO MECHA
CN126
1 END_SENSOR
2 GND
3 HOUSING1_SW
4 HOUSING2_SW
FROM SENSOR
CN127
1 START_SENSOR
2 GND
FROM START SENSOR
CN128
1 GND
2 DEW_SENS.
FROM DEW SENSOR

4.4 ISB/G/R SCHEMATIC DIAGRAM


IC1 ICX418AL-A(NTSC) ICX419AL-A(PAL)
IC2 AD9849AKST
IC3 MN3112SA
V DRIVER
RA3 NRZ0015-101X
RA2
RA1
B ch
TP1
Q1 2SC4626
Q2 2SC4626
D1 MA142A
CN1(ISB) OGF050BF2-40X
1 +5V
2 +5V
3 AFE+3V
4 AFE+3V
5 D+3.3V
6 AGND
7 B0
8 B1
9 B2
10 B3
11 B4
12 B5
13 B6
14 B7
15 B8
16 B9
17 B10
18 B11
19 +15V
20 SDT
21 SCK
22 AFE_CSB
23 AGND
24 V1
25 V2
26 V3
27 V4
28 SUB
29 TG1
30 TG2
31 -8V
32 AGND
33 DBE_HD
34 DBE_VD
35 PBLK
36 HBLK
37 OBCLP
38 AGND
39 14M_CLK
40 AGND
ISB
CK269800B1 (ISB)

TO 04 TGDF CN1 (Page 4-8)

01 ISB


IC1 ICX418AL-A(NTSC) ICX419AL-A(PAL)
IC2 AD9849AKST
IC3 MN3112SA
V DRIVER
RA3 NRZ0015-101X
RA2
RA1
G ch or R ch
TP1
Q1 2SC4626
Q2 2SC4626
D1 MA142A
CN2(G ch) CN3(R ch) OGF050BF1-40X
40 +5V
39 +5V
38 AFE+3V
37 AFE+3V
36 D+3.3V
35 AGND
34 G11(R11)
33 G10(R10)
32 G9(R9)
31 G8(R8)
30 G7(R7)
29 G6(R6)
28 G5(R5)
27 G4(R4)
26 G3(R3)
25 G2(R2)
24 G1(R1)
23 G0(R0)
22 +15V
21 SDT
20 SCK
19 AFE_CSG(R)
18 AGND
17 V1
16 V2
15 V3
14 V4
13 SUB
12 TG1
11 TG2
10 -8V
9 AGND
8 DBE_HD
7 DBE_VD
6 PBLK
5 HBLK
4 OBCLP
3 AGND
2 14M_CLK
1 AGND
ISG ISR
CK269800B2(ISG)
CK269800B3(ISR)

TO 04 TGDF CN2 (G ch) CN3 (R ch) (Page 4-8)

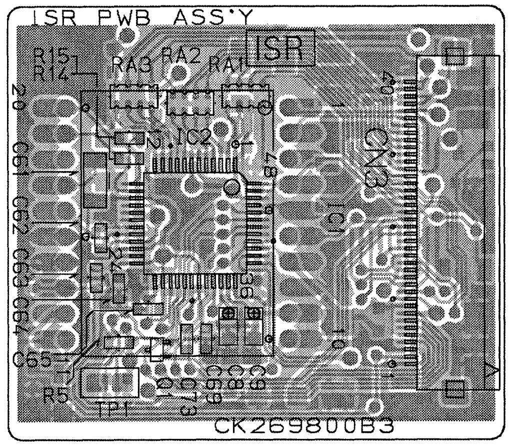
02 ISG

03 ISR

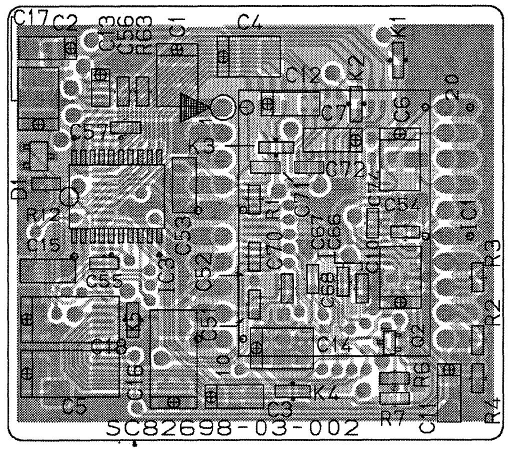
4.5 ISR/G/B CIRCUIT BOARDS

– ISR –

– SIDE A –

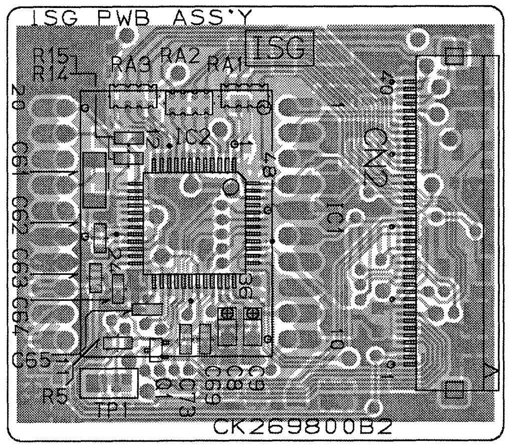

ISR PWB ASS'Y
ISR
IC1
IC2
CN3
CK269800B3

– SIDE B –

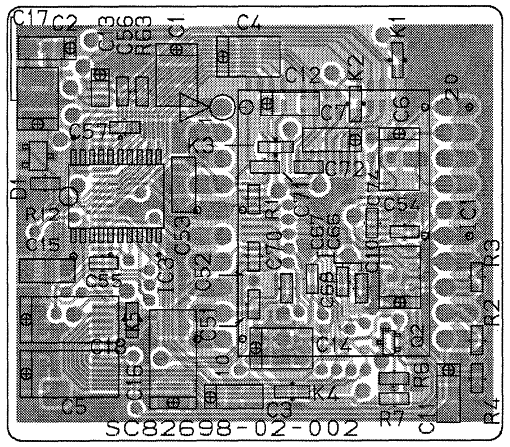

IC1
IC3
SC82698-03-002

– ISG –

– SIDE A –

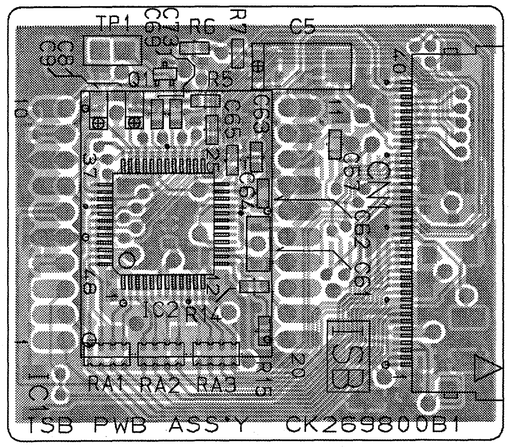

ISG PWB ASS'Y
ISG
IC1
IC2
CN2
CK269800B2

– SIDE B –

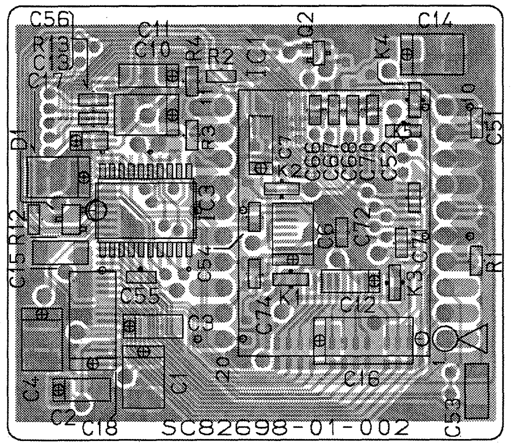

IC1
IC3
SC82698-02-002

– ISB –

– SIDE A –

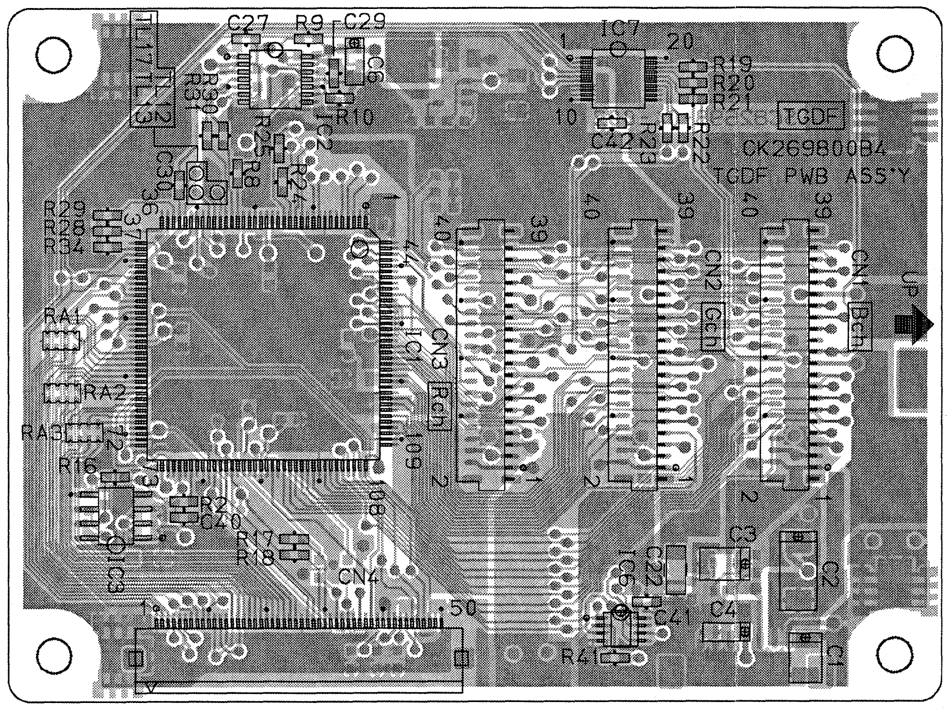

ISB
IC1
IC2
CN1
ISB PWB ASS'Y
CK269800B1

– SIDE B –

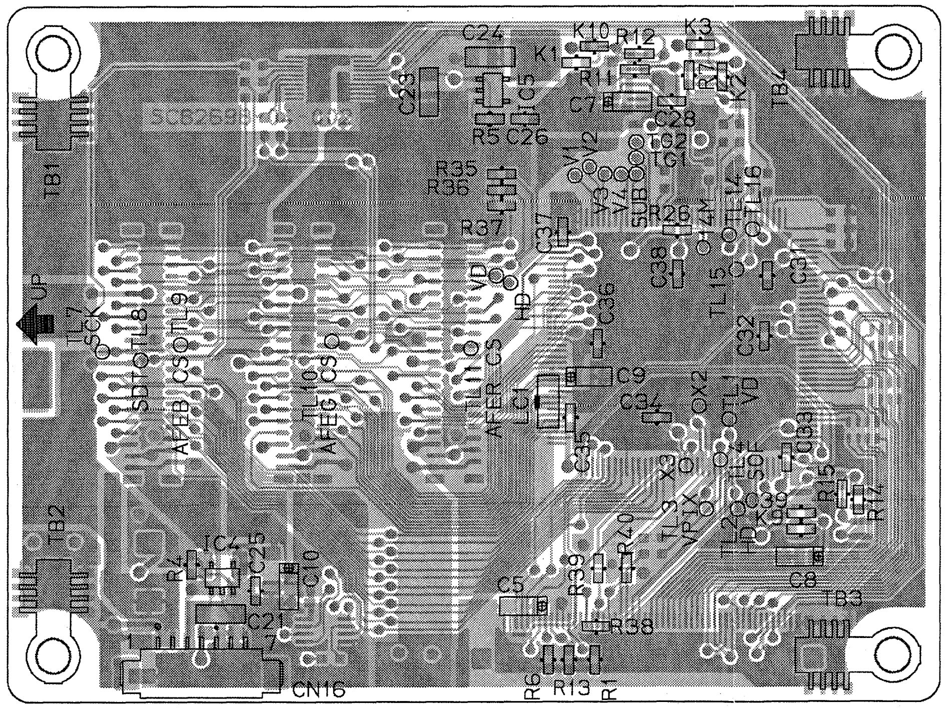

IC1
IC3
SC82698-01-002

4.6 TGDF CIRCUIT BOARD

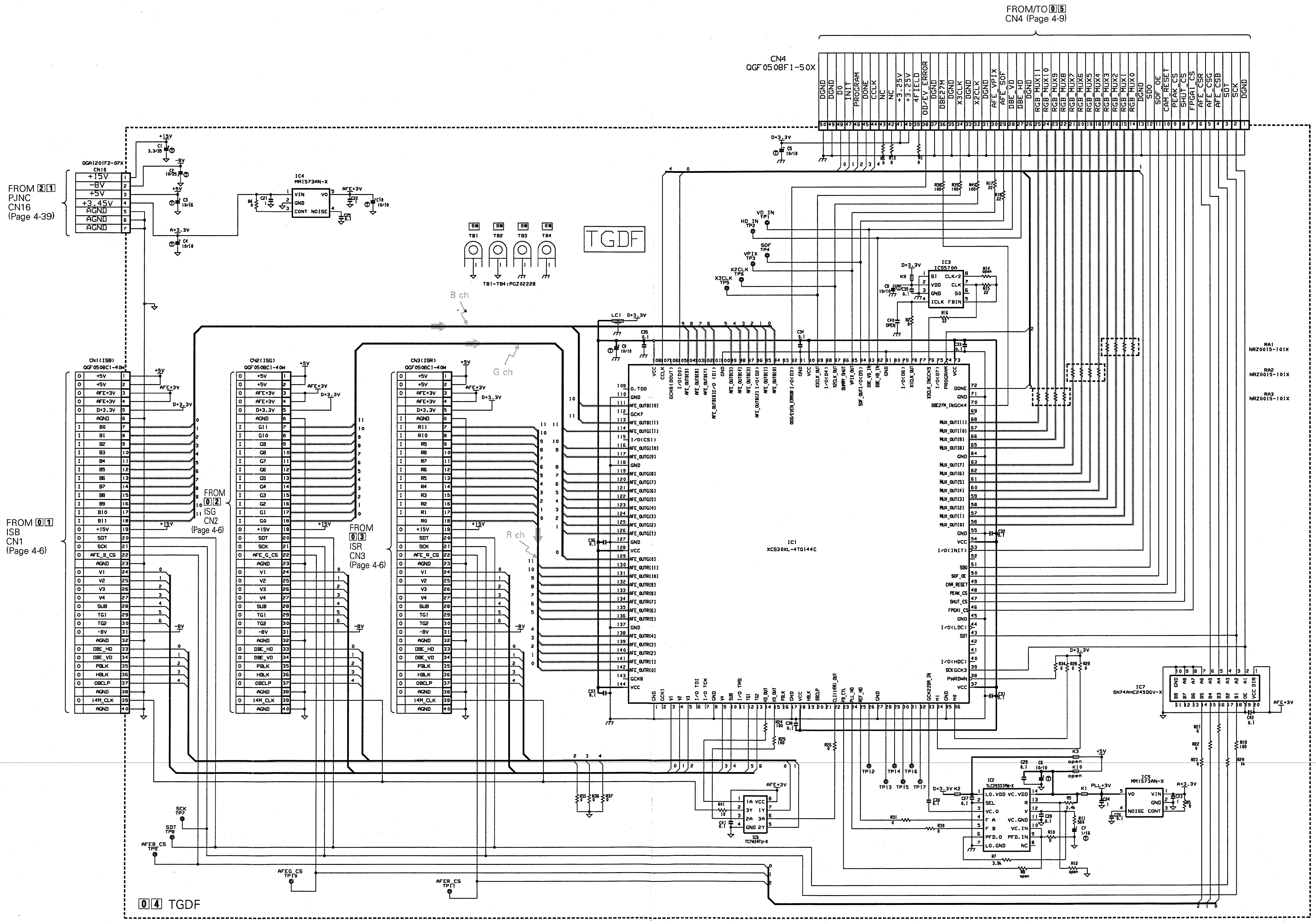
– SIDE A –


IC7
TGDF
CK269800B4
TGDF PWB ASS'Y
CN1
CN2
CN3
CN4
IC1
IC6
UP

– SIDE B –

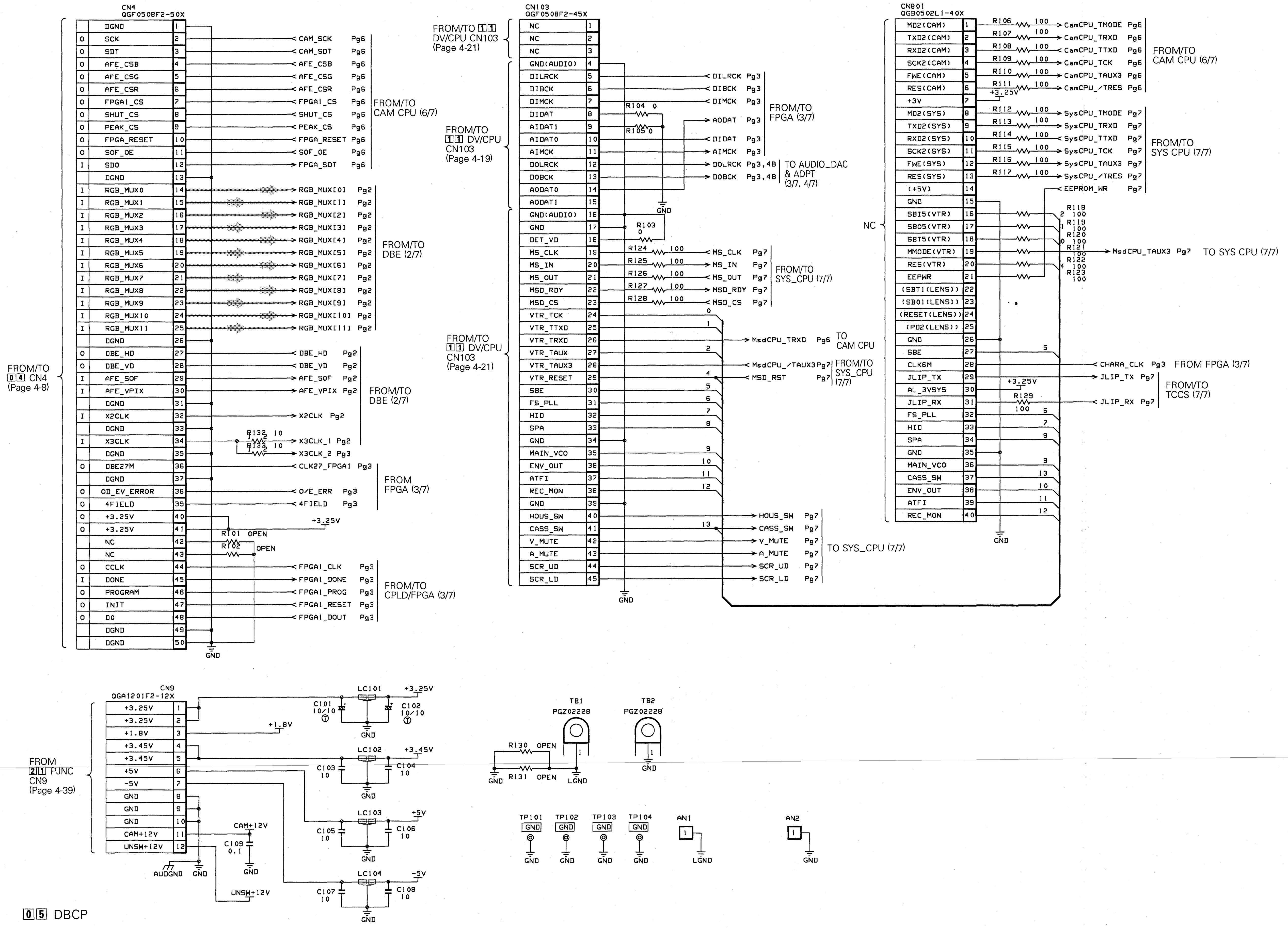

TB1
TB2
TB3
TB4
CN16
IC4
UP

4.7 TGDF SCHEMATIC DIAGRAM



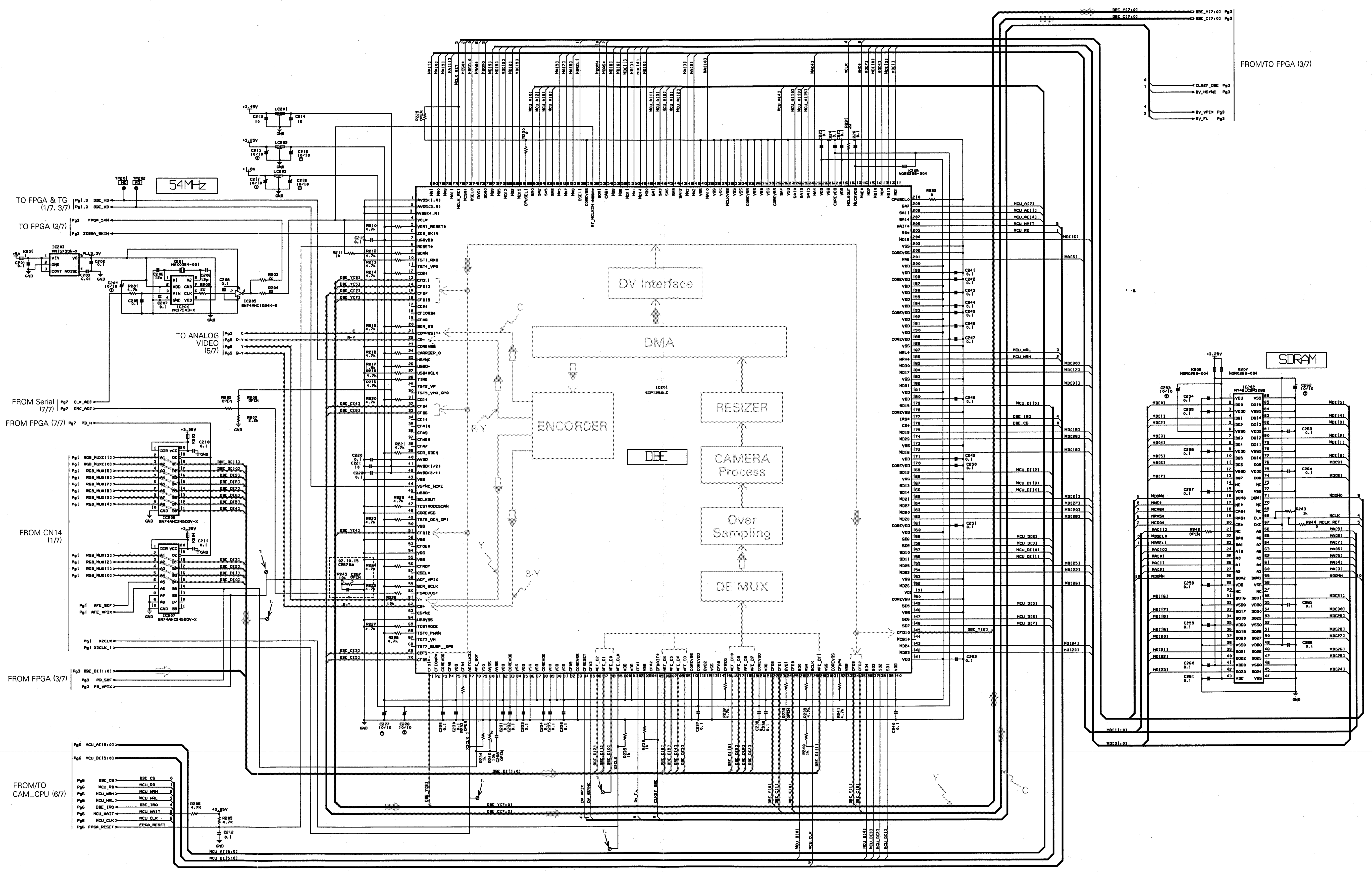
FROM/TO 05
CN4 (Page 4-9)
CN4
QGF0508F1-50X
FROM 21
PJNC
CN16
(Page 4-39)
QGA1201F2-07X
CN16
+15V
-8V
+5V
+3.45V
AGND
IC4
MM1573AN-X
VIN
VO
GND
CONT NOISE
TB1 TB2 TB3 TB4
TB1~TB4:PGZ02228
TGDF
B ch
G ch
R ch
CN1(ISB)
QGF0508C1-40H
CN2(ISG)
QGF0508C1-40H
CN3(ISR)
QGF0508C1-40H
FROM 01
ISB
CN1
(Page 4-6)
FROM 02
ISG
CN2
(Page 4-6)
FROM 03
ISR
CN3
(Page 4-6)
IC1
XCS30XL-4TQ144C
IC3
ICS570A
IC7
SN74AHC245DGV-X
IC2
TLC2933IPW-X
IC5
MM1573AN-X
IC6
TC7W04FU-X
RA1
NRZ0015-101X
RA2
NRZ0015-101X
RA3
NRZ0015-101X
VD_IN TP1
HD_IN TP2
VPIX TP3
SOF TP4
X3CLK TP5
X2CLK TP6
SCK TP7
SDT TP8
AFEB_CS TP9
AFEG_CS TP10
AFER_CS TP11
TP12 TP13 TP14 TP15 TP16 TP17
04 TGDF

4.8 DBCP SCHEMATIC DIAGRAM 1/7

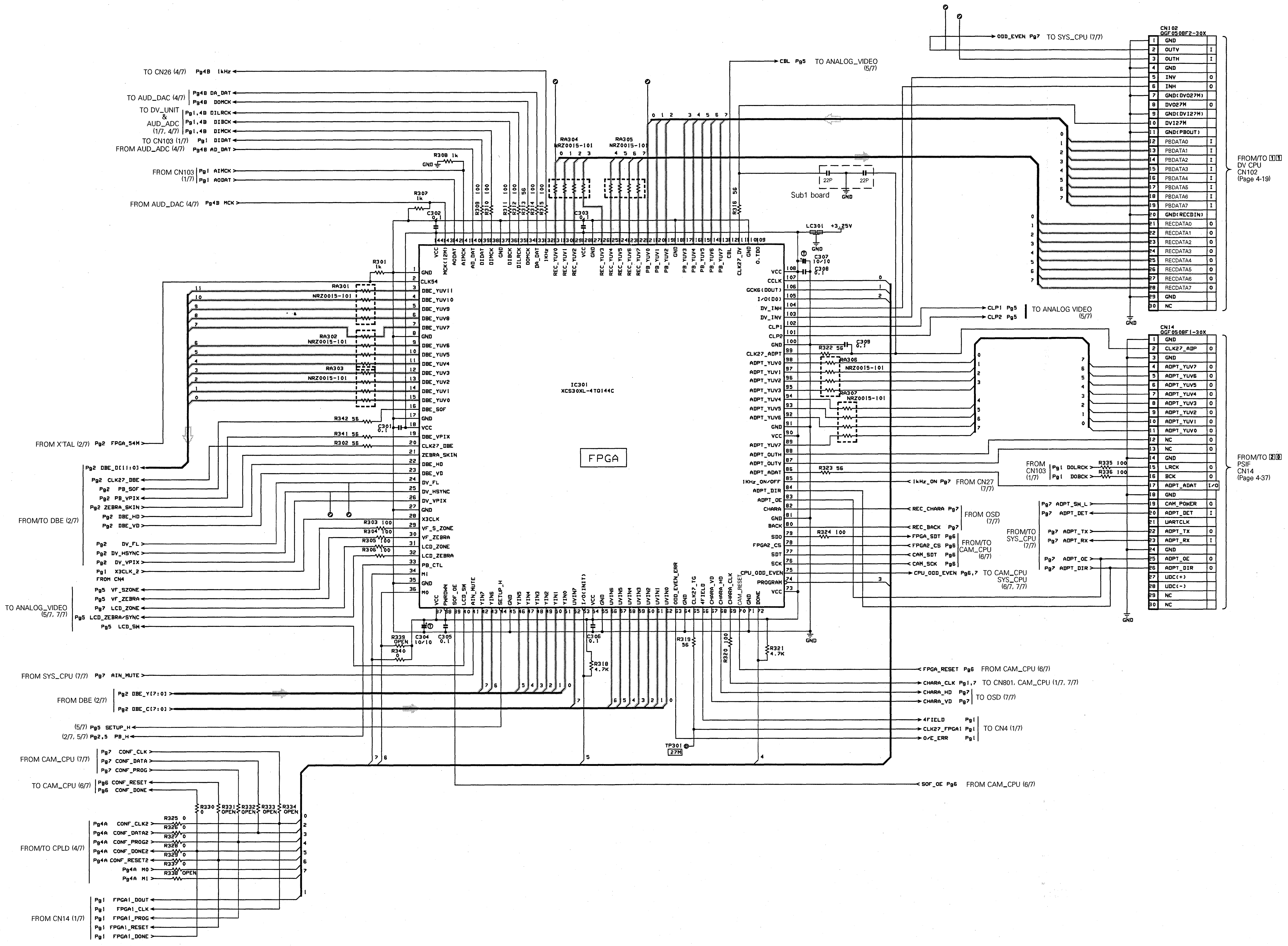

CN4
QGF0508F2-50X
1 DGND
O 2 SCK
O 3 SDT
O 4 AFE_CSB
O 5 AFE_CSG
O 6 AFE_CSR
O 7 FPGA1_CS
O 8 SHUT_CS
O 9 PEAK_CS
O 10 FPGA_RESET
O 11 SOF_OE
I 12 SDO
13 DGND
I 14 RGB_MUX0
I 15 RGB_MUX1
I 16 RGB_MUX2
I 17 RGB_MUX3
I 18 RGB_MUX4
I 19 RGB_MUX5
I 20 RGB_MUX6
I 21 RGB_MUX7
I 22 RGB_MUX8
I 23 RGB_MUX9
I 24 RGB_MUX10
I 25 RGB_MUX11
26 DGND
O 27 DBE_HD
O 28 DBE_VD
I 29 AFE_SOF
I 30 AFE_VPIX
31 DGND
I 32 X2CLK
33 DGND
I 34 X3CLK
35 DGND
O 36 DBE27M
37 DGND
O 38 OD_EV_ERROR
O 39 4FIELD
O 40 +3.25V
O 41 +3.25V
42 NC
43 NC
O 44 CCLK
I 45 DONE
O 46 PROGRAM
O 47 INIT
O 48 D0
49 DGND
50 DGND
GND
FROM/TO 04 CN4 (Page 4-8)
CAM_SCK Pg6
CAM_SDT Pg6
AFE_CSB Pg6
AFE_CSG Pg6
AFE_CSR Pg6
FPGA1_CS Pg6
SHUT_CS Pg6
PEAK_CS Pg6
FPGA_RESET Pg6
SOF_OE Pg6
FPGA_SDT Pg6
FROM/TO CAM CPU (6/7)
RGB_MUX[0] Pg2
RGB_MUX[1] Pg2
RGB_MUX[2] Pg2
RGB_MUX[3] Pg2
RGB_MUX[4] Pg2
RGB_MUX[5] Pg2
RGB_MUX[6] Pg2
RGB_MUX[7] Pg2
RGB_MUX[8] Pg2
RGB_MUX[9] Pg2
RGB_MUX[10] Pg2
RGB_MUX[11] Pg2
FROM/TO DBE (2/7)
DBE_HD Pg2
DBE_VD Pg2
AFE_SOF Pg2
AFE_VPIX Pg2
X2CLK Pg2
R132 10
R133 10
X3CLK_1 Pg2
X3CLK_2 Pg3
FROM/TO DBE (2/7)
CLK27_FPGA1 Pg3
O/E_ERR Pg3
4FIELD Pg3
FROM FPGA (3/7)
+3.25V
R101 OPEN
R102 OPEN
FPGA1_CLK Pg3
FPGA1_DONE Pg3
FPGA1_PROG Pg3
FPGA1_RESET Pg3
FPGA1_DOUT Pg3
FROM/TO CPLD/FPGA (3/7)
CN103
QGF0508F2-45X
FROM/TO 11 DV/CPU CN103 (Page 4-21)
1 NC
2 NC
3 NC
4 GND(AUDIO)
5 DILRCK
6 DIBCK
7 DIMCK
8 DIDAT
9 AIDAT1
10 AIDAT0
11 AIMCK
12 DOLRCK
13 DOBCK
14 AODAT0
15 AODAT1
16 GND(AUDIO)
17 GND
18 DET_VD
19 MS_CLK
20 MS_IN
21 MS_OUT
22 MSD_RDY
23 MSD_CS
24 VTR_TCK
25 VTR_TTXD
26 VTR_TRXD
27 VTR_TAUX
28 VTR_TAUX3
29 VTR_RESET
30 SBE
31 FS_PLL
32 HID
33 SPA
34 GND
35 MAIN_VCO
36 ENV_OUT
37 ATFI
38 REC_MON
39 GND
40 HOUS_SW
41 CASS_SW
42 V_MUTE
43 A_MUTE
44 SCR_UD
45 SCR_LD
FROM/TO 11 DV/CPU CN103 (Page 4-19)
FROM/TO 11 DV/CPU CN103 (Page 4-21)
R104 0
R105 0
R103 0
GND
DILRCK Pg3
DIBCK Pg3
DIMCK Pg3
AODAT Pg3
DIDAT Pg3
AIMCK Pg3
FROM/TO FPGA (3/7)
DOLRCK Pg3,4B
DOBCK Pg3,4B
TO AUDIO_DAC & ADPT (3/7, 4/7)
R124 100
R125 100
R126 100
R127 100
R128 100
MS_CLK Pg7
MS_IN Pg7
MS_OUT Pg7
MSD_RDY Pg7
MSD_CS Pg7
FROM/TO SYS_CPU (7/7)
MsdCPU_TRXD Pg6
TO CAM CPU
MsdCPU_/TAUX3 Pg7
MSD_RST Pg7
FROM/TO SYS_CPU (7/7)
HOUS_SW Pg7
CASS_SW Pg7
V_MUTE Pg7
A_MUTE Pg7
SCR_UD Pg7
SCR_LD Pg7
TO SYS_CPU (7/7)
GND
CN801
QGB0502L1-40X
1 MD2(CAM)
2 TXD2(CAM)
3 RXD2(CAM)
4 SCK2(CAM)
5 FWE(CAM)
6 RES(CAM)
7 +3V
8 MD2(SYS)
9 TXD2(SYS)
10 RXD2(SYS)
11 SCK2(SYS)
12 FWE(SYS)
13 RES(SYS)
14 (+5V)
15 GND
16 SBI5(VTR)
17 SBO5(VTR)
18 SBT5(VTR)
19 MMODE(VTR)
20 RES(VTR)
21 EEPWR
22 (SBT1(LENS))
23 (SBO1(LENS))
24 (RESET(LENS))
25 (PD2(LENS))
26 GND
27 SBE
28 CLK6M
29 JLIP_TX
30 AL_3VSYS
31 JLIP_RX
32 FS_PLL
33 HID
34 SPA
35 GND
36 MAIN_VCO
37 CASS_SW
38 ENV_OUT
39 ATFI
40 REC_MON
NC
R106 100 CamCPU_TMODE Pg6
R107 100 CamCPU_TRXD Pg6
R108 100 CamCPU_TTXD Pg6
R109 100 CamCPU_TCK Pg6
R110 100 CamCPU_TAUX3 Pg6
R111 100 CamCPU_/TRES Pg6
+3.25V
FROM/TO CAM CPU (6/7)
R112 100 SysCPU_TMODE Pg7
R113 100 SysCPU_TRXD Pg7
R114 100 SysCPU_TTXD Pg7
R115 100 SysCPU_TCK Pg7
R116 100 SysCPU_TAUX3 Pg7
R117 100 SysCPU_/TRES Pg7
FROM/TO SYS CPU (7/7)
EEPROM_WR Pg7
R118 100
R119 100
R120 100
R121 100
R122 100
R123 100
MsdCPU_TAUX3 Pg7
TO SYS CPU (7/7)
CHARA_CLK Pg3
FROM FPGA (3/7)
JLIP_TX Pg7
+3.25V
R129 100
JLIP_RX Pg7
FROM/TO TCCS (7/7)
GND
CN9
QGA1201F2-12X
1 +3.25V
2 +3.25V
3 +1.8V
4 +3.45V
5 +3.45V
6 +5V
7 -5V
8 GND
9 GND
10 GND
11 CAM+12V
12 UNSW+12V
FROM 21 PJNC CN9 (Page 4-39)
AUDGND
GND
+1.8V
CAM+12V
C109 0.1
UNSW+12V
LC101 +3.25V
C101 10/10
C102 10/10
LC102 +3.45V
C103 10
C104 10
LC103 +5V
C105 10
C106 10
LC104 -5V
C107 10
C108 10
GND
TB1 PGZ02228
TB2 PGZ02228
R130 OPEN
R131 OPEN
LGND
TP101 GND
TP102 GND
TP103 GND
TP104 GND
AN1
AN2
GND

05 DBCP

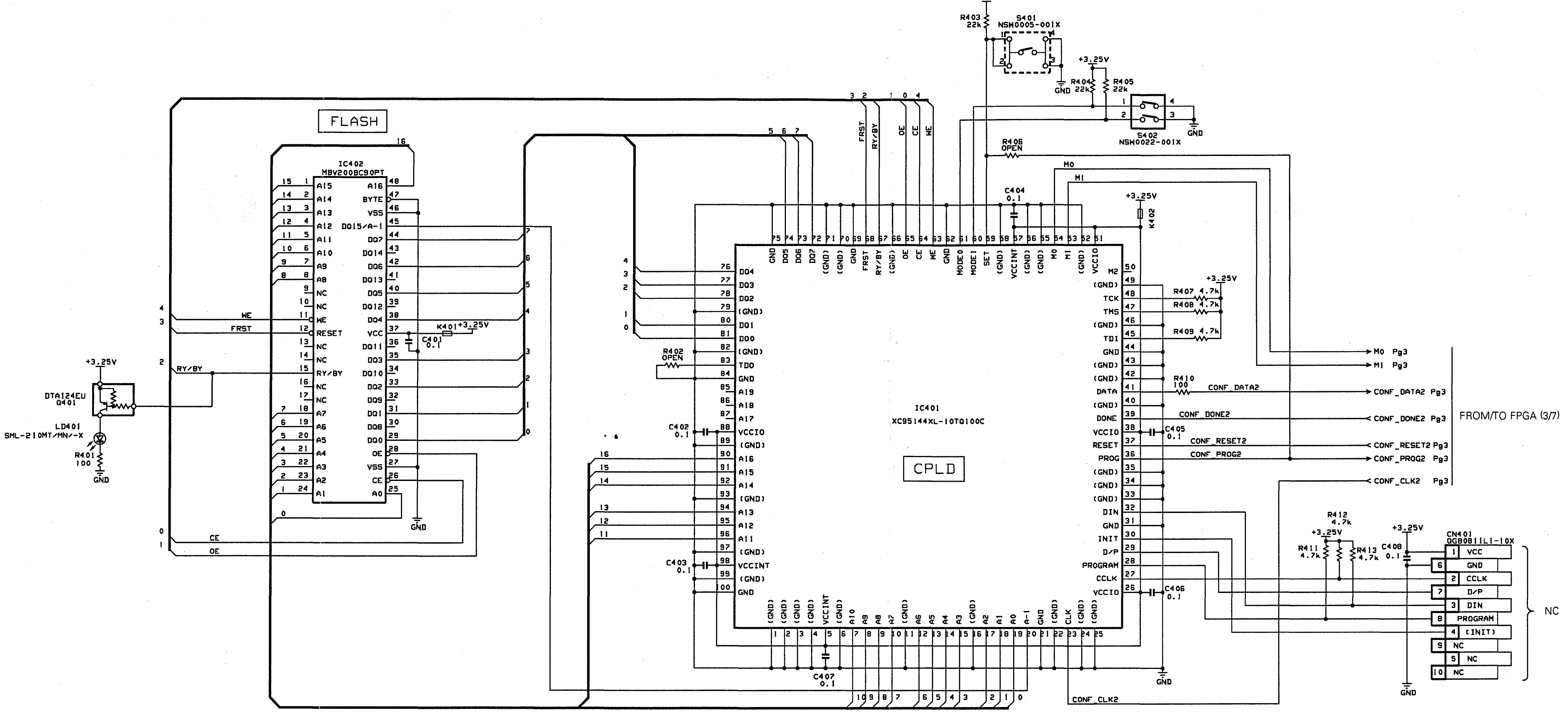
— DBCP SCHEMATIC DIAGRAM 2/7 —

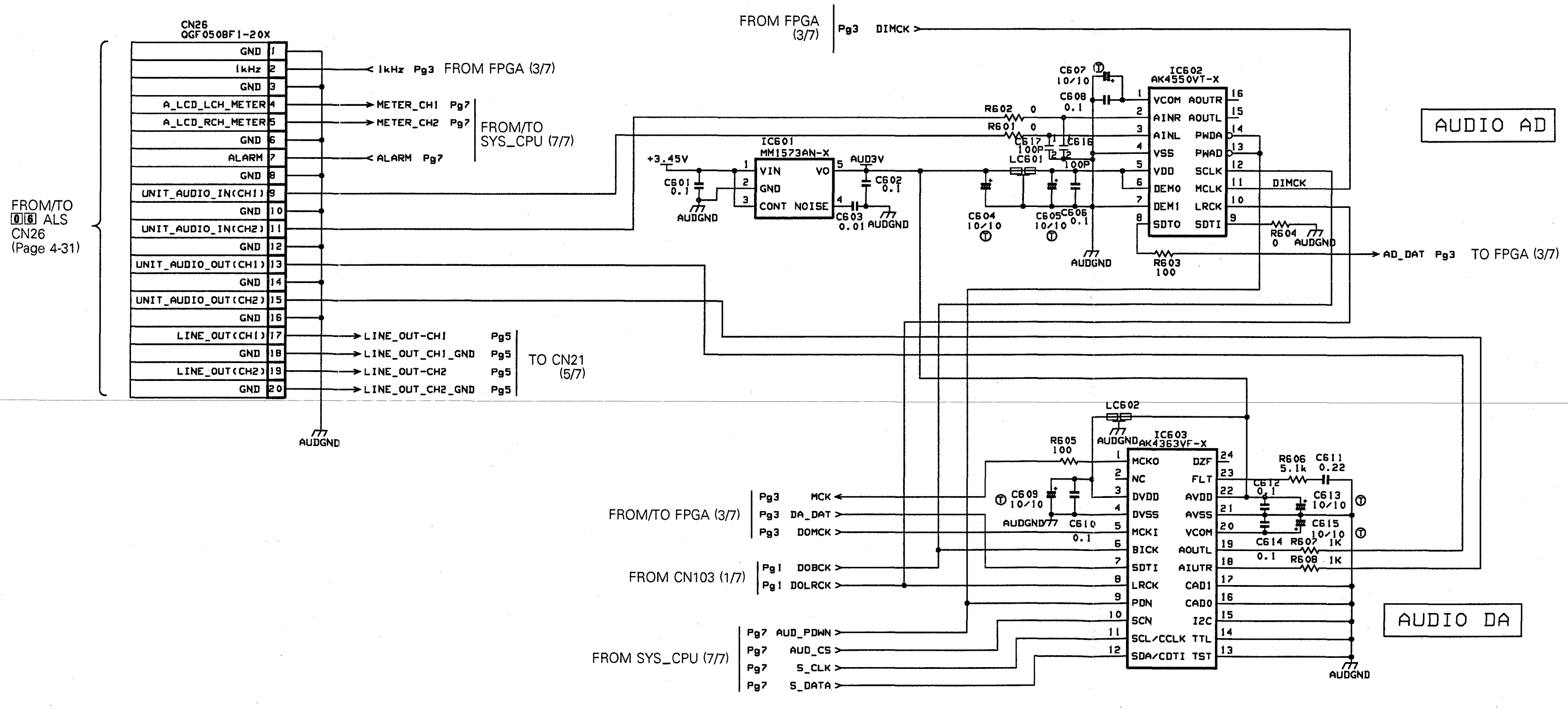

54MHz
TO FPGA & TG (1/7, 3/7)
TO FPGA (3/7)
TO ANALOG VIDEO (5/7)
FROM Serial (7/7)
FROM FPGA (7/7)
FROM CN14 (1/7)
FROM FPGA (3/7)
FROM/TO CAM_CPU (6/7)
FROM/TO FPGA (3/7)
DV Interface
DMA
ENCORDER
RESIZER
CAMERA Process
Over Sampling
DE MUX
DBE
IC201
SIP1250LC
SDRAM
C
R-Y
Y
B-Y

– DBCP SCHEMATIC DIAGRAM 3/7 –

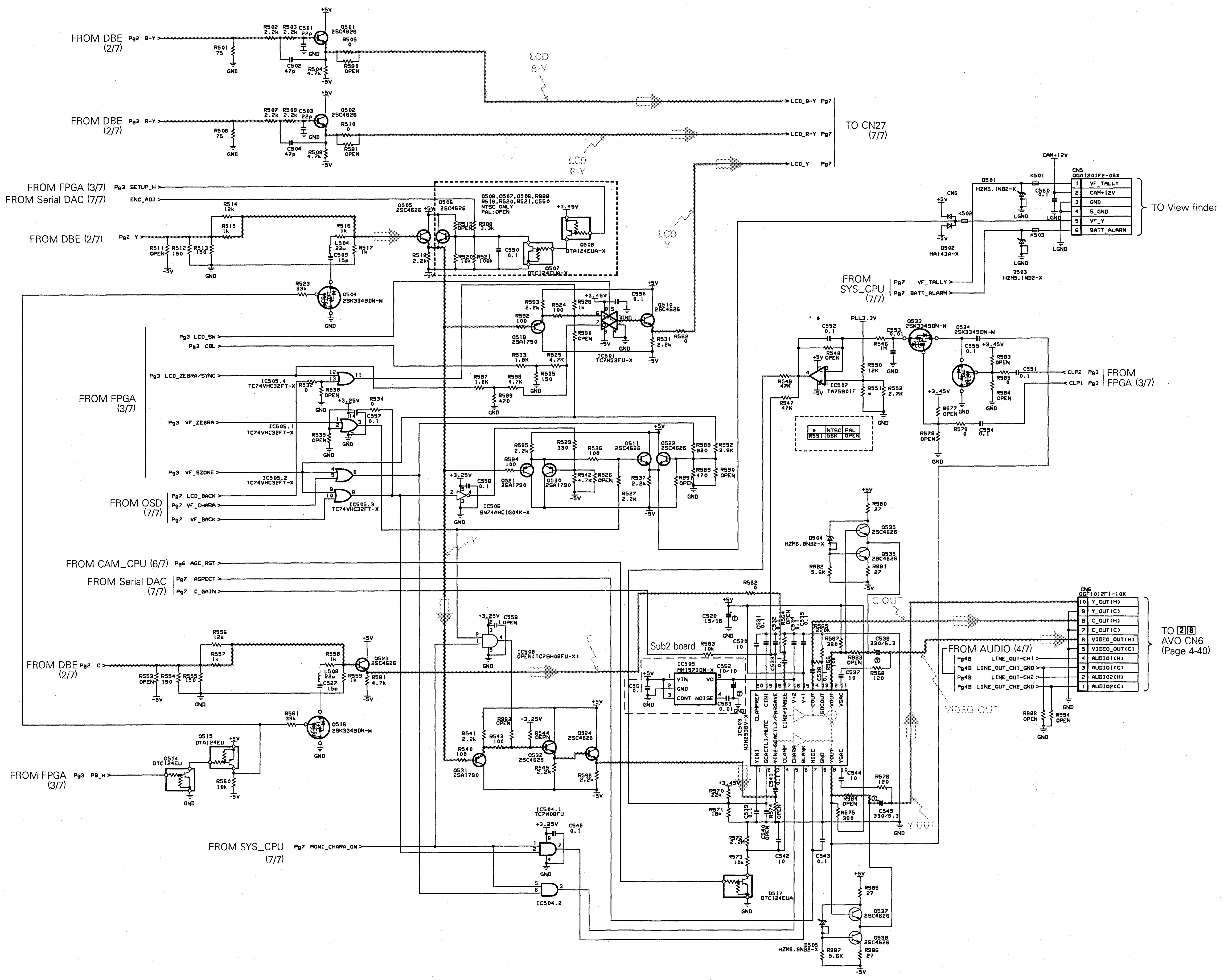

IC301
XCS30XL-4TQ144C
FPGA
CN102
QGF0508F2-30X
FROM/TO ⑪⑪
DV CPU
CN102
(Page 4-19)
CN14
QGF0508F1-30X
FROM/TO ②⑩
PSIF
CN14
(Page 4-37)
Sub1 board
TO CN26 (4/7)
TO AUD_DAC (4/7)
TO DV_UNIT & AUD_ADC (1/7, 4/7)
TO CN103 (1/7)
FROM AUD_ADC (4/7)
FROM CN103 (1/7)
FROM X'TAL (2/7)
FROM/TO DBE (2/7)
TO ANALOG_VIDEO (5/7, 7/7)
FROM SYS_CPU (7/7)
FROM DBE (2/7)
FROM CAM_CPU (7/7)
TO CAM_CPU (6/7)
FROM/TO CPLD (4/7)
FROM CN14 (1/7)
TO SYS_CPU (7/7)
TO ANALOG_VIDEO (5/7)
FROM CN27 (7/7)
FROM OSD (7/7)
FROM/TO CAM_CPU (6/7)
FROM/TO SYS_CPU (7/7)
TO CAM_CPU SYS_CPU (6/7, 7/7)
FROM CAM_CPU (6/7)
TO CN801, CAM_CPU (1/7, 7/7)
TO OSD (7/7)
TO CN4 (1/7)
FROM CN103 (1/7)
RA301 NRZ0015-101
RA302 NRZ0015-101
RA303 NRZ0015-101
RA304 NRZ0015-101
RA305 NRZ0015-101
RA306 NRZ0015-101
RA307 NRZ0015-101
LC301 +3.25V
TP301 27M

– DBCP SCHEMATIC DIAGRAM 4/7 –

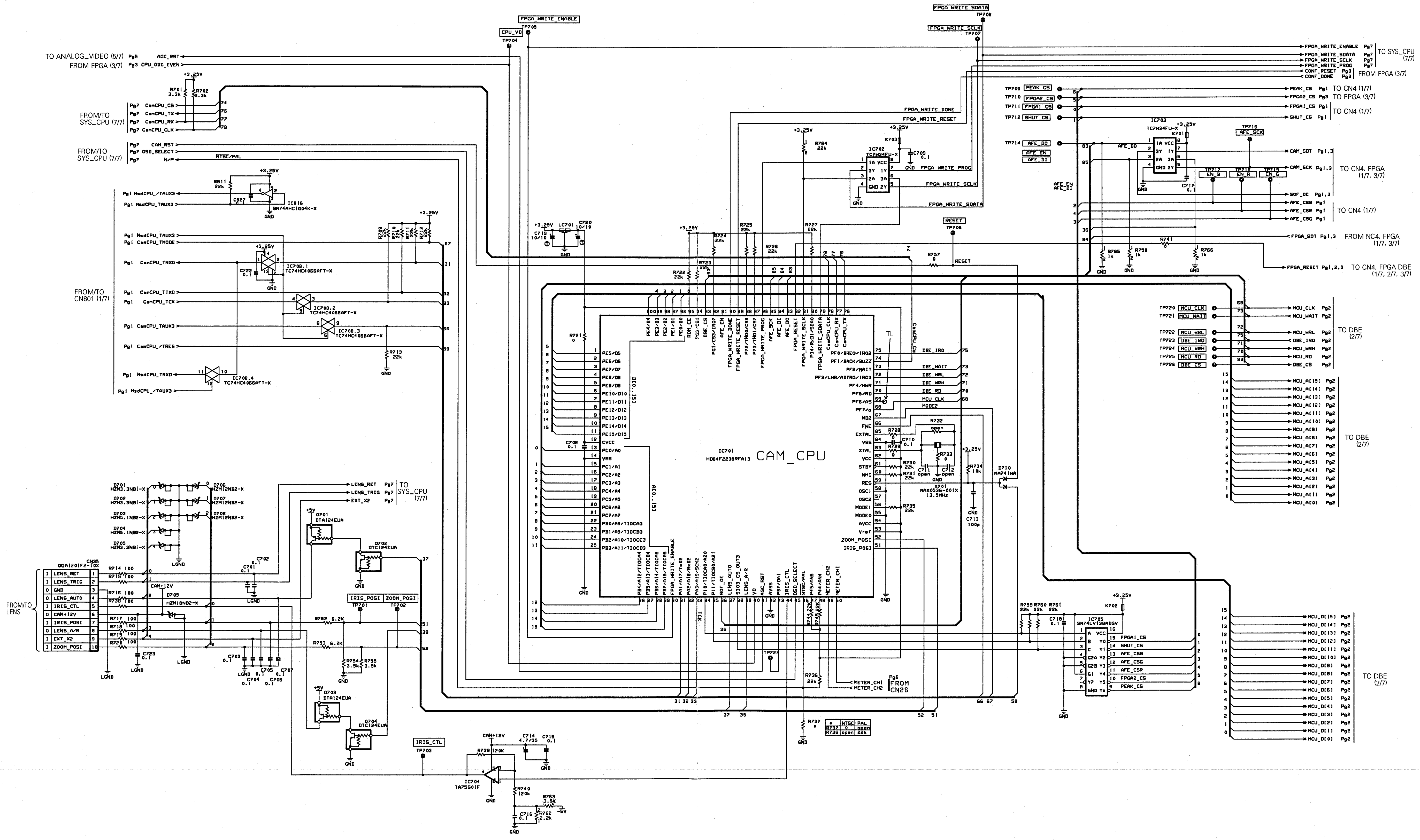

FLASH
IC402
MBV200BC90PT
CPLD
IC401
XC95144XL-10TQ100C
S401
NSM0005-001X
S402
NSM0022-001X
R403 22k
R404 22k
R405 22k
R406 OPEN
R402 OPEN
R407 4.7k
R408 4.7k
R409 4.7k
R410 100
R411 4.7k
R412 4.7k
R413 4.7k
K401
K402
C401 0.1
C402 0.1
C403 0.1
C404 0.1
C405 0.1
C406 0.1
C407 0.1
C408 0.1
DTA124EU Q401
LD401 SML-210MT/MN/-X
R401 100
+3.25V
GND
WE
FRST
RY/BY
CE
OE
M0
M1
CONF_DATA2
CONF_DONE2
CONF_RESET2
CONF_PROG2
CONF_CLK2
M0 Pg3
M1 Pg3
CONF_DATA2 Pg3
CONF_DONE2 Pg3
CONF_RESET2 Pg3
CONF_PROG2 Pg3
CONF_CLK2 Pg3
FROM/TO FPGA (3/7)
CN401
QGB0811L1-10X
VCC
GND
CCLK
D/P
DIN
PROGRAM
(INIT)
NC


CN26
QGF0508F1-20X
GND
1kHz
A_LCD_LCH_METER
A_LCD_RCH_METER
ALARM
UNIT_AUDIO_IN(CH1)
UNIT_AUDIO_IN(CH2)
UNIT_AUDIO_OUT(CH1)
UNIT_AUDIO_OUT(CH2)
LINE_OUT(CH1)
LINE_OUT(CH2)
AUDGND
1kHz Pg3 FROM FPGA (3/7)
METER_CH1 Pg7
METER_CH2 Pg7
FROM/TO SYS_CPU (7/7)
ALARM Pg7
LINE_OUT-CH1 Pg5
LINE_OUT_CH1_GND Pg5
LINE_OUT-CH2 Pg5
LINE_OUT_CH2_GND Pg5
TO CN21 (5/7)
FROM/TO 06 ALS CN26 (Page 4-31)
FROM FPGA (3/7)
Pg3 DIMCK
IC601
MM1573AN-X
+3.45V
AUD3V
IC602
AK4550VT-X
AUDIO AD
DIMCK
AD_DAT Pg3 TO FPGA (3/7)
R601
R602
R603 100
R604 0
C601 0.1
C602 0.1
C603 0.01
C604 10/10
C605 10/10
C606 0.1
C607 10/10
C608 0.1
C612 100P
C616 100P
LC601
IC603
AK4353VF-X
LC602
R605 100
R606 5.1k
R607 1K
R608 1K
C609 10/10
C610 0.1
C611 0.22
C612 0.1
C613 10/10
C614 0.1
C615 10/10
AUDIO DA
FROM/TO FPGA (3/7)
Pg3 MCK
Pg3 DA_DAT
Pg3 DOMCK
FROM CN103 (1/7)
Pg1 DOBCK
Pg1 DOLRCK
FROM SYS_CPU (7/7)
Pg7 AUD_PDWN
Pg7 AUD_CS
Pg7 S_CLK
Pg7 S_DATA

— DBCP SCHEMATIC DIAGRAM 5/7 —

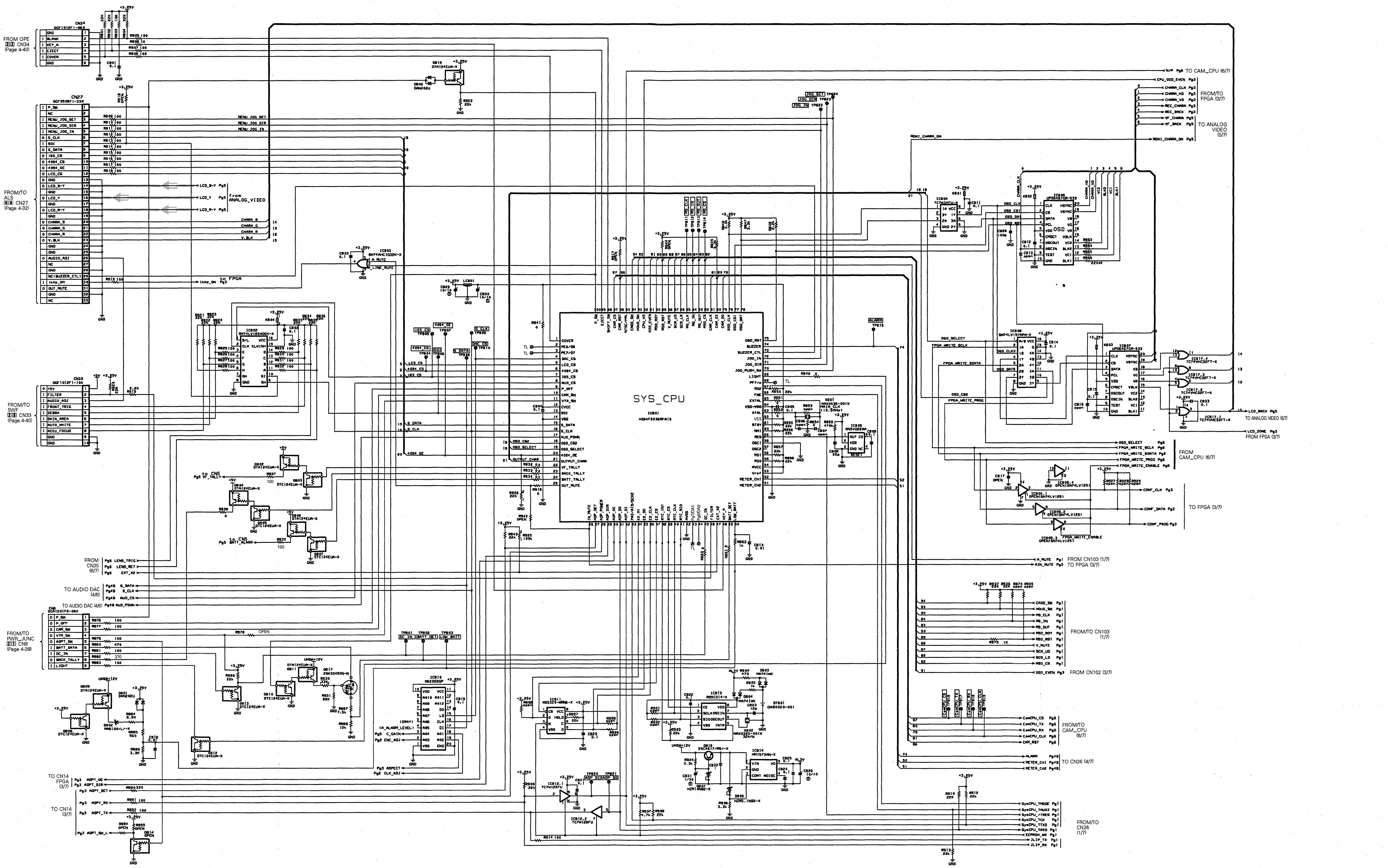

FROM DBE (2/7)
Pg2 B-Y
FROM DBE (2/7)
Pg2 R-Y
LCD B-Y
LCD R-Y
LCD Y
LCD_B-Y Pg7
LCD_R-Y Pg7
LCD_Y Pg7
TO CN27 (7/7)
FROM FPGA (3/7) Pg3 SETUP_H
FROM Serial DAC (7/7) ENC_ADJ
FROM DBE (2/7) Pg2 Y
0506,0507,0508,R988 R519,R520,R521,C550 NTSC ONLY PAL:OPEN
FROM FPGA (3/7)
Pg3 LCD_SW
Pg3 CBL
Pg3 LCD_ZEBRA/SYNC
Pg3 VF_ZEBRA
Pg3 VF_SZONE
FROM OSD (7/7)
Pg7 LCD_BACK
Pg7 VF_CHARA
Pg7 VF_BACK
FROM CAM_CPU (6/7) Pg6 AGC_RST
FROM Serial DAC (7/7)
Pg7 ASPECT
Pg7 C_GAIN
FROM DBE (2/7) Pg2 C
FROM FPGA (3/7) Pg3 PB_H
FROM SYS_CPU (7/7) Pg7 MONI_CHARA_ON
FROM SYS_CPU (7/7)
Pg7 VF_TALLY
Pg7 BATT_ALARM
CN5 OGA1201F2-06X
VF_TALLY
CAM+12V
GND
S_GND
VF_Y
BATT_ALARM
TO View finder
FROM FPGA (3/7)
CLP2 Pg3
CLP1 Pg3
Sub2 board
IC503 NJM2538V-X
IC507 TA75S01F
R551 NTSC 56K PAL OPEN
C OUT
Y OUT
VIDEO OUT
FROM AUDIO (4/7)
Pg4B LINE_OUT-CH1
Pg4B LINE_OUT_CH1_GND
Pg4B LINE_OUT-CH2
Pg4B LINE_OUT_CH2_GND
CN6 OGF1012F1-10X
Y_OUT(H)
Y_OUT(C)
C_OUT(H)
C_OUT(C)
VIDEO_OUT(H)
VIDEO_OUT(C)
AUDIO1(H)
AUDIO1(C)
AUDIO2(H)
AUDIO2(C)
TO 28 AVO CN6 (Page 4-40)

— DBCP SCHEMATIC DIAGRAM 6/7 —



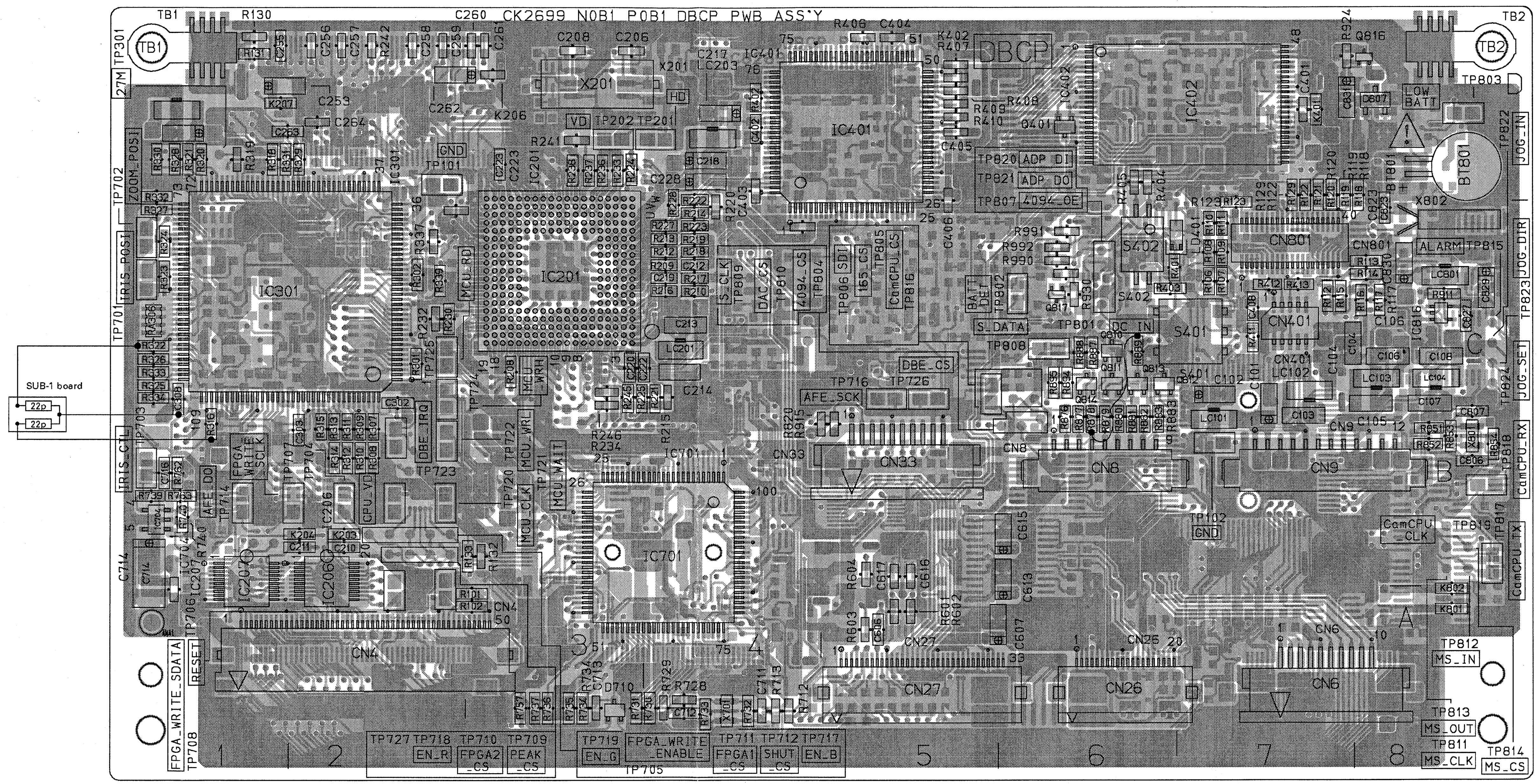
TO ANALOG_VIDEO (5/7)
FROM FPGA (3/7)
FROM/TO SYS_CPU (7/7)
FROM/TO SYS_CPU (7/7)
FROM/TO CN801 (1/7)
FROM/TO LENS
TO SYS_CPU (7/7)
FPGA_WRITE_ENABLE
CPU_VD
FPGA_WRITE_SDATA
FPGA_WRITE_SCLK
TO SYS_CPU (7/7)
FROM FPGA (3/7)
TO CN4 (1/7)
TO FPGA (3/7)
TO CN4 (1/7)
TO CN4, FPGA (1/7, 3/7)
TO CN4 (1/7)
FROM NC4, FPGA (1/7, 3/7)
TO CN4, FPGA DBE (1/7, 2/7, 3/7)
TO DBE (2/7)
TO DBE (2/7)
TO DBE (2/7)
IC701
HD64F2238RFA13
CAM_CPU
IC702 TC7W34FU-X
IC703 TC7W34FU-X
IC705 SN74LV138ADGV
IC704 TA75S01F
IC816 SN74AHC1G04X-X
IC708 TC74HC4066AFT-X
X701 NAX0536-001X 13.5MHz
CN35 0GA120IF2-10X
LENS_RET
LENS_TRIG
GND
LENS_AUTO
IRIS_CTL
CAM+12V
IRIS_POSI
LENS_A/R
EXT_X2
ZOOM_POSI
IRIS_POSI
ZOOM_POSI
IRIS_CTL
RESET
FROM CN26
METER_CH1
METER_CH2
NTSC PAL
R737 0 open
R736 open 22k

– DBCP SCHEMATIC DIAGRAM 7/7 –


FROM OPE (2/3) CN34 (Page 4-40)
CN34
FROM/TO ALS (3/3) CN27 (Page 4-32)
CN27
FROM/TO SWF (2/3) CN33 (Page 4-40)
CN33
FROM CN35 (6/7)
TO AUDIO DAC (4/6)
TO AUDIO DAC (4/6)
FROM/TO PWR_JUNC (2/3) CN8 (Page 4-39)
CN8
TO CN14 FPGA (3/7)
TO CN14 (3/7)
SYS_CPU
IC801
TO CAM_CPU (6/7)
FROM/TO FPGA (3/7)
TO ANALOG VIDEO (5/7)
OSD
TO ANALOG VIDEO (5/7)
FROM FPGA (3/7)
FROM CAM_CPU (6/7)
TO FPGA (3/7)
FROM CN103 (1/7)
TO FPGA (3/7)
FROM/TO CN103 (1/7)
FROM CN102 (3/7)
FROM/TO CAM_CPU (6/7)
TO CN26 (4/7)
FROM/TO CN26 (1/7)
+3.25V
GND
UNSW+12V

4.9 DBCP CIRCUIT BOARD

– SIDE A –


CK2699 N0B1 P0B1 DBCP PWB ASS'Y
DBCP
TB1
TB2
SUB-1 board
22p
22p
IC201
IC301
IC401
IC402
IC701
IC206
IC207
X201
BT801
CN4
CN6
CN8
CN9
CN26
CN27
CN33
CN401
CN801
S401
S402
LOW BATT
ALARM
ADP_DI
ADP_DO
4094_OE
DC_IN
S_DATA
BATT DET
DBE_CS
AFE_SCK
AFE_DO
FPGA WRITE SCLK
DBE_IRQ
CPU_VD
MCU_RD
MCU_WRH
MCU_WRL
MCU_CLK
MCU_WAIT
GND
VD
HD
IRIS_POSI
ZOOM_POSI
IRIS_CTL
JOG_IN
JOG_DIR
JOG_SET
CamCPU_RX
CamCPU_TX
CamCPU_CLK
MS_IN
MS_OUT
MS_CLK
MS_CS
RESET
FPGA_WRITE_SDATA
EN_R
FPGA2_CS
PEAK_CS
EN_G
FPGA_WRITE_ENABLE
FPGA1_CS
SHUT_CS
EN_B
1
2
5
6
7
8
A
B

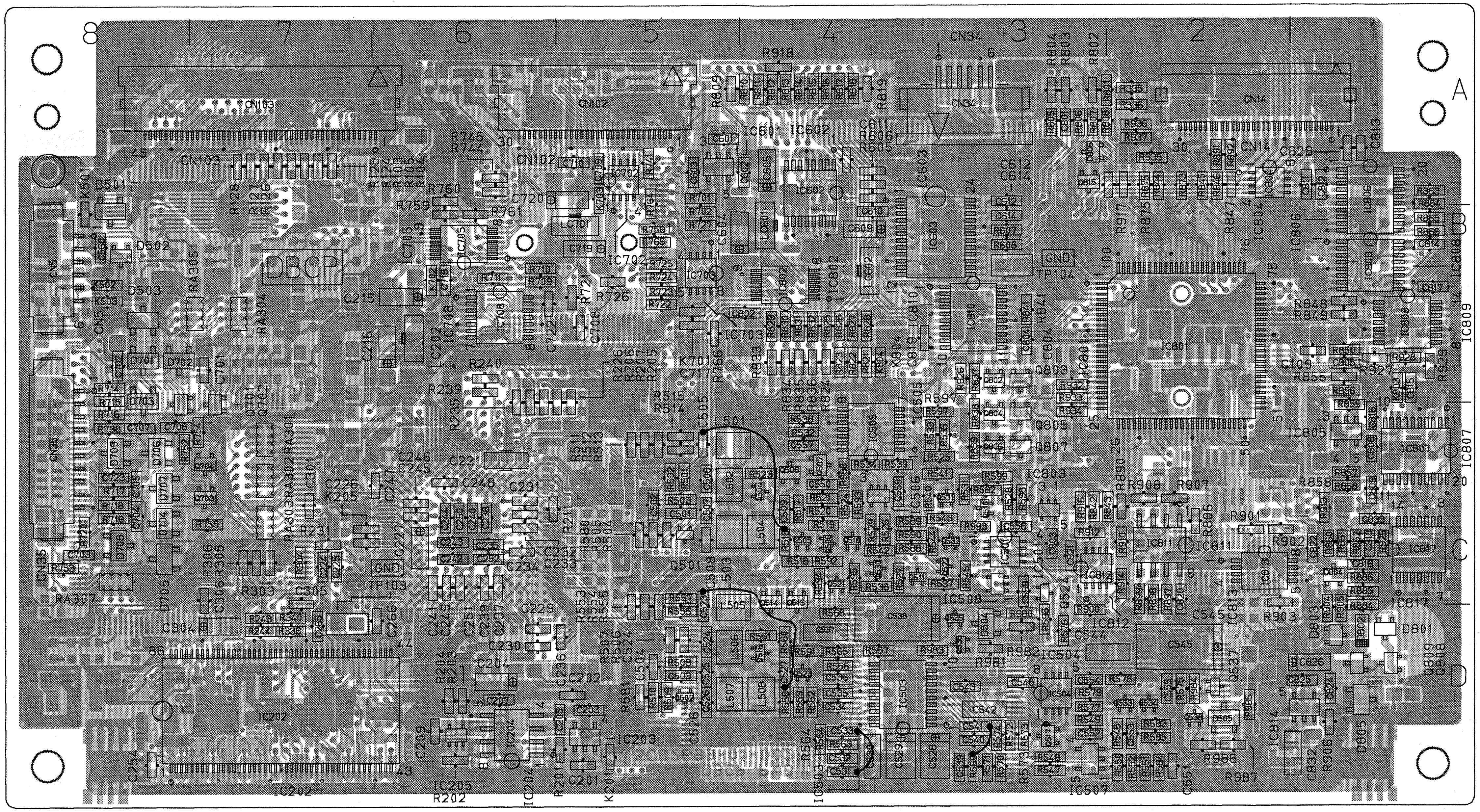
● **ADDRESS TABLE OF BOARD PARTS**

Each address may have an address error by one interval.

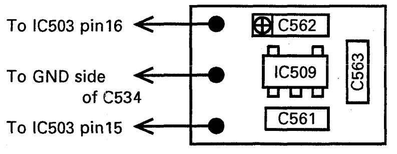
A-1C
Side
Y axis
X axis

IC201	A-3C	IC705	B-6B	Q506	B-4C	Q702	B-7B	D505	B-2D	R106	A-7C	R130	A-1D	R221	A-4B	R245	A-3B	R324	A-1C	R408	A-5D	R519	B-4C	R545	B-3C	R569	B-3D	R595	B-4C	R718	B-8C	R744	B-6A	R809	B-5A	R833	B-4B
IC202	B-7D	IC708	B-6B	Q507	B-4C	Q703	B-7C	D701	B-8B	R107	A-7C	R131	A-1D	R222	A-4C	R246	A-3B	R325	A-1C	R409	A-5D	R520	B-4C	R546	B-2D	R570	B-3D	R596	B-3D	R719	B-8C	R745	B-6A	R810	B-5A	R834	B-4B
IC203	B-5D	IC801	B-2B	Q508	B-4C	Q704	B-7C	D702	B-8B	R108	A-7C	R132	A-3B	R223	A-4C	R301	A-2C	R326	A-1C	R410	A-5D	R521	B-4C	R547	B-3D	R571	B-3D	R597	B-3C	R720	B-8C	R752	B-8C	R811	B-4A	R835	B-4B
IC204	B-6D	IC802	B-4B	Q510	B-3C	Q802	B-3B	D703	B-8B	R109	A-7C	R133	A-2B	R224	A-3D	R302	A-2C	R327	A-1C	R411	A-7C	R523	B-4C	R548	B-3D	R572	B-3D	R598	B-3C	R721	B-5B	R753	B-8C	R812	B-4A	R836	B-4B
IC205	B-6D	IC803	B-3C	Q511	B-4C	Q803	B-3B	D704	B-8C	R110	A-7C	R201	B-6D	R225	A-3B	R303	B-7C	R328	A-1D	R412	A-7C	R524	B-4C	R549	B-3D	R573	B-3D	R599	B-3C	R722	B-5B	R754	B-7C	R813	B-4A	R837	B-3B
IC206	A-2B	IC804	B-2A	Q514	B-4C	Q804	B-3C	D705	B-8C	R111	A-7C	R202	B-6D	R226	B-6B	R304	B-7C	R329	A-2D	R413	A-7C	R525	B-3C	R550	B-2D	R574	B-3D	R601	A-5A	R723	B-5B	R755	B-7C	R814	B-4A	R838	B-3C
IC207	A-1B	IC805	B-1C	Q515	B-4C	Q805	B-3C	D706	B-8C	R112	A-7C	R203	B-6D	R227	A-4C	R305	B-7C	R330	A-1D	R501	B-5C	R526	B-4C	R551	B-2D	R575	B-2D	R602	A-5A	R724	B-5B	R757	A-3A	R815	B-4A	R839	B-3C
IC301	A-2C	IC806	B-1A	Q516	B-4D	Q806	B-3C	D707	B-8C	R113	A-8C	R204	B-6D	R228	A-4C	R306	B-7C	R331	A-1D	R502	B-5C	R527	B-4C	R552	B-2D	R576	B-3D	R603	A-5A	R725	B-5B	R758	B-5B	R816	B-4A	R841	B-3B
IC401	A-5D	IC807	B-1C	Q517	B-3D	Q807	B-3C	D708	B-8C	R114	A-8C	R205	B-5B	R229	A-2C	R307	A-2B	R332	A-1C	R503	B-5C	R528	B-3C	R553	B-5C	R577	B-3D	R604	A-5B	R726	B-5B	R759	B-6B	R817	B-4A	R842	B-3C
IC402	A-7D	IC808	B-1B	Q518	B-4C	Q808	B-1D	D709	B-8C	R115	A-7C	R206	B-6B	R230	A-2C	R308	A-2B	R333	A-1C	R504	B-5C	R529	B-4C	R554	B-5C	R578	B-2D	R605	B-4A	R727	B-5B	R760	B-6A	R818	B-4A	R843	B-3C
IC501	B-3C	IC809	B-1B	Q521	B-4C	Q809	B-1D	D710	A-3A	R116	A-7C	R207	B-6B	R231	B-7C	R309	A-2B	R334	A-1B	R505	B-5C	R531	B-3C	R555	B-5C	R579	B-3D	R606	B-4A	R728	A-4A	R761	B-6B	R819	B-4A	R844	B-2A
IC503	B-4D	IC810	B-3B	Q522	B-3C	Q810	A-6C	D801	B-1D	R117	A-8C	R208	A-3C	R232	A-2C	R310	A-2B	R335	B-2A	R506	B-5D	R532	B-4C	R556	B-5C	R580	B-5C	R607	B-3B	R729	A-4A	R762	A-1B	R820	A-4B	R845	B-2A
IC504	B-3D	IC811	B-2C	Q523	B-4D	Q811	A-6C	D802	B-1D	R118	A-7C	R209	A-4C	R233	A-3D	R311	A-2B	R336	B-2A	R507	B-5D	R533	B-3C	R557	B-5C	R581	B-5D	R608	B-3B	R730	A-4A	R763	A-1B	R821	B-4B	R846	B-2A
IC505	B-4C	IC812	B-3C	Q524	B-3C	Q812	A-6C	D803	B-1D	R119	A-7C	R210	A-4C	R234	A-3B	R312	A-2B	R337	A-2C	R508	B-5D	R534	B-4C	R558	B-4D	R582	B-3C	R701	B-5A	R731	A-3A	R764	B-5A	R822	B-4B	R847	B-2A
IC506	B-4C	IC813	B-2C	Q530	B-4C	Q813	A-6C	D804	B-1C	R120	A-7C	R211	B-6C	R235	B-6B	R313	A-2B	R338	B-7D	R509	B-5D	R535	B-3C	R559	B-4D	R583	B-2D	R702	B-5B	R732	A-4A	R765	B-5B	R823	B-4B	R848	B-1B
IC507	B-3D	IC814	B-1D	Q531	B-3C	Q814	A-6C	D805	B-1D	R121	A-7C	R212	A-4C	R236	A-3D	R314	A-2B	R339	A-2C	R510	B-5D	R536	B-4C	R560	B-4D	R584	B-2D	R709	B-6B	R733	A-4A	R766	B-5B	R824	B-4B	R849	B-1B
IC508	B-3C	IC816	A-8C	Q532	B-3C	Q815	B-3A	D806	B-3A	R122	A-7C	R213	A-4C	R237	A-3D	R315	A-2B	R340	B-7D	R511	B-5C	R537	B-3C	R561	B-4D	R585	B-2D	R710	B-6B	R734	A-3A	R801	B-3A	R825	B-4B	R850	B-1B
IC601	B-5A	IC817	B-1C	Q533	B-2D	Q816	A-8D	D807	A-8D	R123	A-7C	R214	A-4C	R238	A-3D	R316	A-1B	R401	A-6C	R512	B-5C	R538	B-4C	R562	B-4D	R588	B-4C	R711	B-6B	R735	A-3A	R802	B-3A	R826	B-4B	R851	A-8B
IC602	B-4A			Q534	B-2D	Q817	A-6C			R124	B-7A	R215	A-4B	R239	B-6B	R318	A-1D	R402	A-4D	R513	B-5C	R539	B-4C	R563	B-4D	R589	B-4C	R712	A-4A	R736	A-3A	R803	B-3A	R827	B-4B	R852	A-8B
IC603	B-3B	Q401	A-6D	Q535	B-3D			R101	A-3A	R125	B-7A	R216	A-4C	R240	B-6B	R319	A-1D	R403	A-6C	R514	B-5C	R540	B-4C	R564	B-4D	R590	B-4C	R713	A-4A	R737	A-3A	R804	B-3A	R828	B-4B	R853	A-8B
IC701	A-4B	Q501	B-5C	Q536	B-3D	D501	B-8B	R102	A-3A	R126	B-7A	R217	A-4C	R241	A-3D	R320	A-1D	R404	A-6D	R515	B-5C	R541	B-3C	R565	B-4D	R591	B-4D	R714	B-8B	R738	B-8C	R805	B-3A	R829	B-4B	R854	A-8B
IC702	B-5A	Q502	B-5D	Q537	B-2D	D502	B-8B	R103	B-7A	R127	B-7A	R218	A-4C	R242	A-2D	R321	A-1D	R405	A-6D	R516	B-4C	R542	B-4C	R566	B-4D	R592	B-4C	R715	B-8B	R739	A-1B	R806	B-3A	R830	B-4B	R855	B-1B
IC703	B-5B	Q504	B-4C	Q538	B-2D	D503	B-8B	R104	B-7A	R128	B-7A	R219	A-4C	R243	B-7D	R322	A-1C	R406	A-5D	R517	B-4C	R543	B-3C	R567	B-4D	R593	B-4C	R716	B-8C	R740	A-1B	R807	B-3A	R831	B-4B	R856	B-1B
IC704	A-1B	Q505	B-4C	Q701	B-8B	D504	B-3D	R105	B-7A	R129	A-7C	R220	A-4C	R244	B-7D	R323	A-1C	R407	A-5D	R518	B-4C	R544	B-3C	R568	B-4C	R594	B-4C	R717	B-8C	R741	B-5A	R808	B-3A	R832	B-4B	R857	B-1C

– SIDE B –

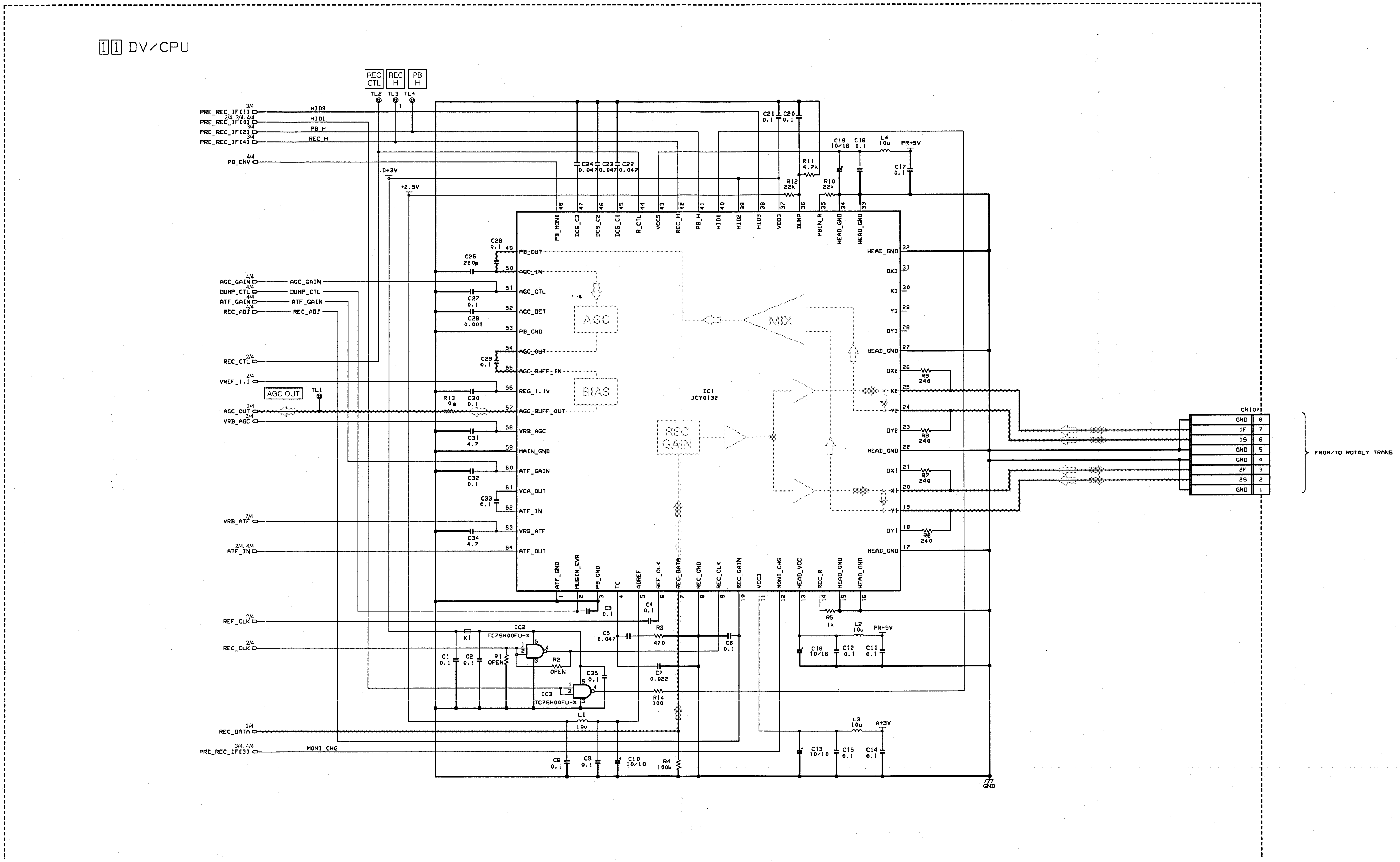


R858	B-1C	R889	A-6C	R915	A-5B	R985	B-2D	C108	A-8C	C223	A-3D	C247	B-6C	C305	B-7C	C526	B-5D	C553	B-2D	C617	A-5B	C802	B-5B	C826	B-1D	TP702	A-1C	TP801	A-6C	CN4	A-2A	K207	A-1D	LC701	B-5B
R859	B-1B	R890	B-2C	R916	B-3C	R986	B-2D	C109	B-1B	C224	B-7C	C248	B-6C	C306	B-7C	C527	B-4D	C554	B-3D	C701	B-7B	C803	B-3C	C827	A-8C	TP703	A-1B	TP802	A-6C	CN5	B-8B	K401	A-7D	LC801	A-8C
R860	B-1C	R891	B-2A	R917	B-2A	R987	B-2D	C201	B-5D	C225	B-7C	C249	B-6C	C307	A-1D	C528	B-3D	C555	B-2D	C702	B-8B	C804	B-3B	C828	B-1A	TP704	A-2B	TP803	A-8D	CN6	A-7A	K402	A-5D		
R861	B-1C	R892	B-2A	R918	B-4A	R988	B-4C	C202	B-5D	C226	B-7C	C250	B-6C	C308	A-1B	C529	B-4D	C556	B-3C	C703	B-8C	C805	B-1B	C829	A-8C	TP705	A-2B	TP804	A-6B	CN8	A-6B	K501	B-8B	TB1	A-1D
R862	B-1C	R894	A-6C	R923	B-3A	R990	A-6C	C203	B-5D	C227	B-6C	C251	B-6C	C401	A-7D	C530	B-4D	C557	B-4C	C704	B-8C	C806	A-8B	C830	A-8C	TP706	A-2A	TP805	A-6B	CN9	A-7B	K502	B-8B	TB2	A-8D
R863	B-1A	R895	A-6C	R924	A-7D	R991	A-6C	C204	B-6D	C228	A-4D	C252	B-6C	C402	A-4D	C531	B-4D	C558	B-4C	C705	B-8C	C807	A-8B	C831	A-7D	TP707	A-2B	TP806	A-5B	CN14	B-2A	K503	B-8B		
R864	B-1A	R896	B-2C	R925	B-1C	R992	A-6C	C205	B-6D	C229	B-6D	C253	A-1D	C403	A-4D	C532	B-4D	C559	B-3C	C706	B-8C	C808	B-1C	C832	B-2D	TP708	A-2A	TP807	A-6C	CN26	A-6A	K701	B-5B	BT801	A-8D
R865	B-1B	R897	B-2C	R926	B-3B	R993	B-3C	C206	A-3D	C230	B-6D	C254	B-8D	C404	A-5D	C533	B-4D	C560	B-8B	C707	B-8C	C809	B-1C	C833	B-1C	TP709	A-2B	TP808	A-6C	CN27	A-5A	K702	B-6B		
R866	B-1B	R898	B-2C	R927	B-1B			C207	B-6D	C231	B-6C	C255	A-1D	C405	A-5D	C534	B-4D	C601	B-5A	C708	B-5B	C810	B-1C			TP710	A-2B	TP809	A-5B	CN33	A-5B	K703	B-5A	L501	B-5C
R873	B-2A	R899	B-2C	R928	B-1B	RA301	B-7C	C208	A-3D	C232	B-6C	C256	A-2D	C406	A-5C	C535	B-4D	C602	B-5A	C709	B-5A	C811	B-1A	LD401	A-6C	TP711	A-2B	TP810	A-6B	CN34	B-3A	K801	A-8A	L502	B-5C
R875	B-2A	R900	B-3C	R929	B-1B	RA302	B-7C	C209	B-6D	C233	B-6C	C257	A-2D	C407	A-4C	C536	B-4D	C603	B-5A	C710	B-5A	C812	B-1A			TP712	A-2B	TP811	A-8B	CN35	B-8C	K802	A-8A	L503	B-5C
R876	A-6B	R901	B-2C	R930	A-6C	RA303	B-7C	C210	A-2B	C234	B-6C	C258	A-2D	C408	A-7C	C537	B-4D	C604	B-5B	C711	A-4A	C813	B-1A	X201	A-3D	TP714	A-1B	TP812	A-8B	CN102	B-5A	K803	B-1B	L504	B-4C
R877	A-6B	R902	B-2C	R931	A-6C	RA304	B-7B	C211	A-2B	C235	B-6C	C259	A-2D	C501	B-5C	C538	B-4D	C605	B-4A	C712	A-4A	C814	B-1B	X701	A-4A	TP716	A-5B	TP813	A-8B	CN103	B-7A	K804	B-4B	L505	B-5C
R878	A-6B	R903	B-2C	R932	B-3B	RA305	B-7B	C212	A-4C	C236	B-5D	C260	A-3D	C502	B-5C	C539	B-3D	C606	A-5A	C713	A-3A	C815	B-1B	X801	A-8B	TP717	A-2B	TP814	A-8B	CN401	A-7C			L506	B-5D
R879	A-6B	R904	B-1C	R933	B-3B	RA306	A-1C	C213	A-4C	C237	B-6C	C261	A-3D	C503	B-5D	C540	B-3D	C607	A-5A	C714	A-1B	C816	B-1C	X802	A-8C	TP718	A-2B	TP815	A-8C	CN801	A-7C	LC101	A-7B	L507	B-5D
R880	A-6B	R905	B-1C	R934	B-3C	RA307	B-8C	C214	A-4C	C238	B-6C	C262	A-2D	C504	B-5D	C541	B-3D	C608	B-4A	C715	A-1A	C817	B-1B			TP719	A-2B	TP816	A-6B			LC102	A-7B	L508	B-4D
R881	A-6B	R906	B-1D	R935	B-2A			C215	B-6B	C239	B-6C	C263	A-1D	C505	B-5C	C542	B-3D	C609	B-4B	C716	A-1B	C818	B-1C	TP101	A-2D	TP720	A-2B	TP817	A-8B	S401	A-7C	LC103	A-8C		
R882	A-6B	R907	B-2C	R936	B-2A	C101	A-7B	C216	B-6B	C240	B-6C	C264	A-2D	C506	B-5C	C543	B-3D	C610	B-4B	C717	B-5B	C819	B-4B	TP102	A-7B	TP721	A-2B	TP818	A-8B	S402	A-6C	LC104	A-8C		
R883	A-6B	R908	B-2C	R937	B-2A	C102	A-7B	C217	A-4D	C241	B-6C	C265	B-7D	C507	B-5C	C544	B-3D	C611	B-4A	C718	B-6B	C820	B-2C	TP103	B-7D	TP722	A-2B	TP819	A-8B			LC201	A-4C		
R884	B-1C	R910	B-2C	R980	B-3C	C103	A-7B	C218	A-4D	C242	B-6C	C266	B-6D	C508	B-5C	C545	B-2D	C612	B-3A	C719	B-5B	C821	B-3C	TP104	B-3B	TP723	A-2B	TP820	A-6C	K201	B-5D	LC202	B-6B		
R885	B-1C	R911	A-8C	R981	B-3D	C104	A-7C	C219	A-4C	C243	B-6C	C301	B-7C	C509	B-4C	C546	B-3D	C613	A-5B	C720	B-5A	C822	B-1C	TP201	A-4D	TP724	A-2B	TP821	A-6C	K203	A-2B	LC203	A-4D		
R886	B-1C	R912	B-3C	R982	B-3D	C105	A-8B	C220	A-3C	C244	B-6C	C302	A-2B	C523	B-5C	C550	B-4C	C614	B-3B	C722	B-6B	C823	A-8C	TP202	A-3D	TP725	A-2C	TP822	A-8C	K204	A-2B	LC301	A-1D		
R887	A-6C	R913	B-1C	R983	B-3D	C106	A-8C	C221	B-6C	C245	B-6C	C303	A-2B	C524	B-5D	C551	B-2D	C615	A-5B	C723	B-8C	C824	B-1D	TP301	A-1D	TP726	A-5B	TP823	A-8C	K205	B-7C	LC601	B-4B		
R888	A-6C	R914	B-2C	R984	B-2D	C107	A-8B	C222	A-3C	C246	B-6C	C304	B-7D	C525	B-5D	C552	B-3D	C616	A-5B	C801	B-3A	C825	B-1D	TP701	A-1C	TP727	A-2B	TP824	A-8C	K206	A-3D	LC602	B-4B		



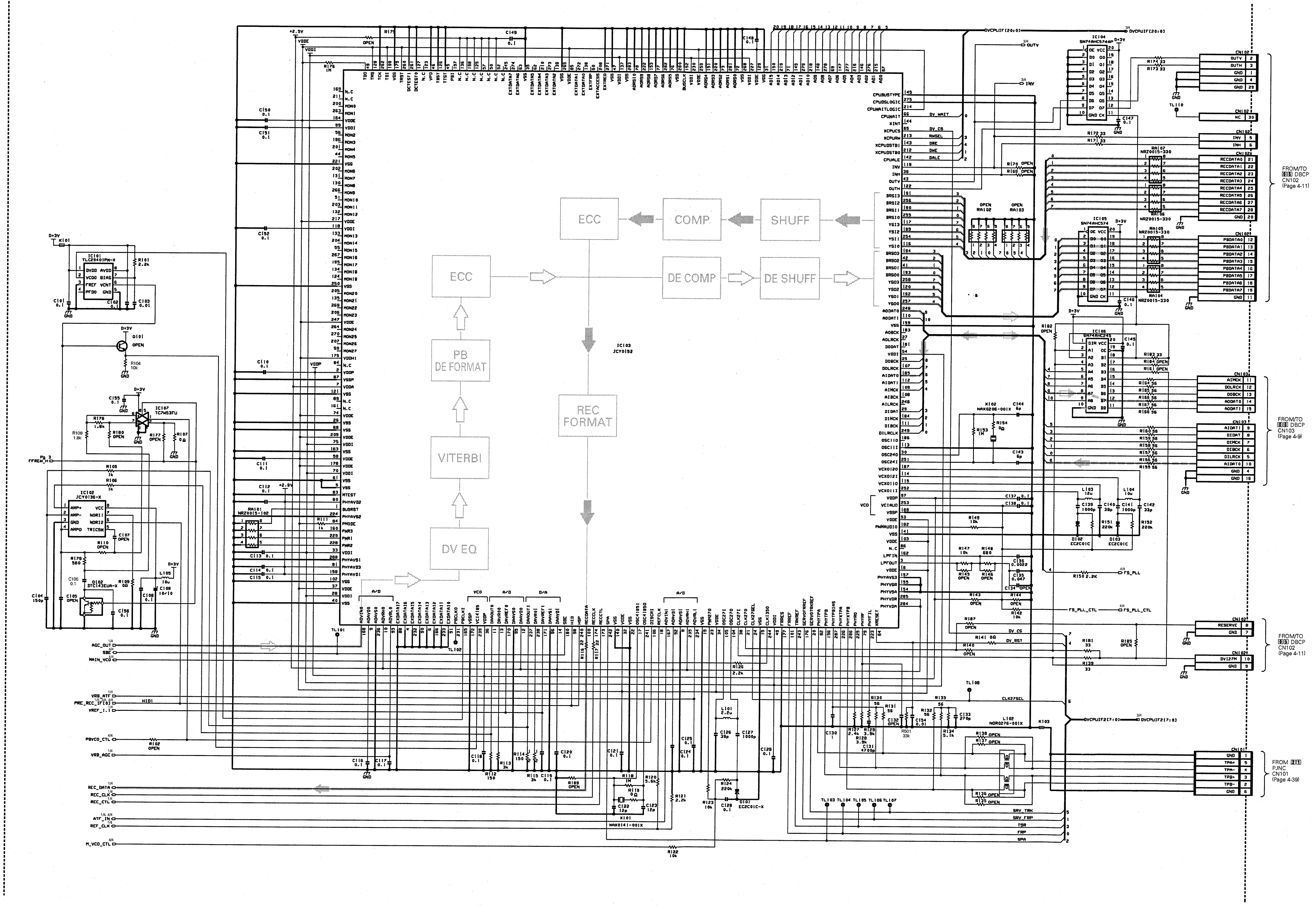
SUB-2 board

4.10 DV/CPU SCHEMATIC DIAGRAM 1/4



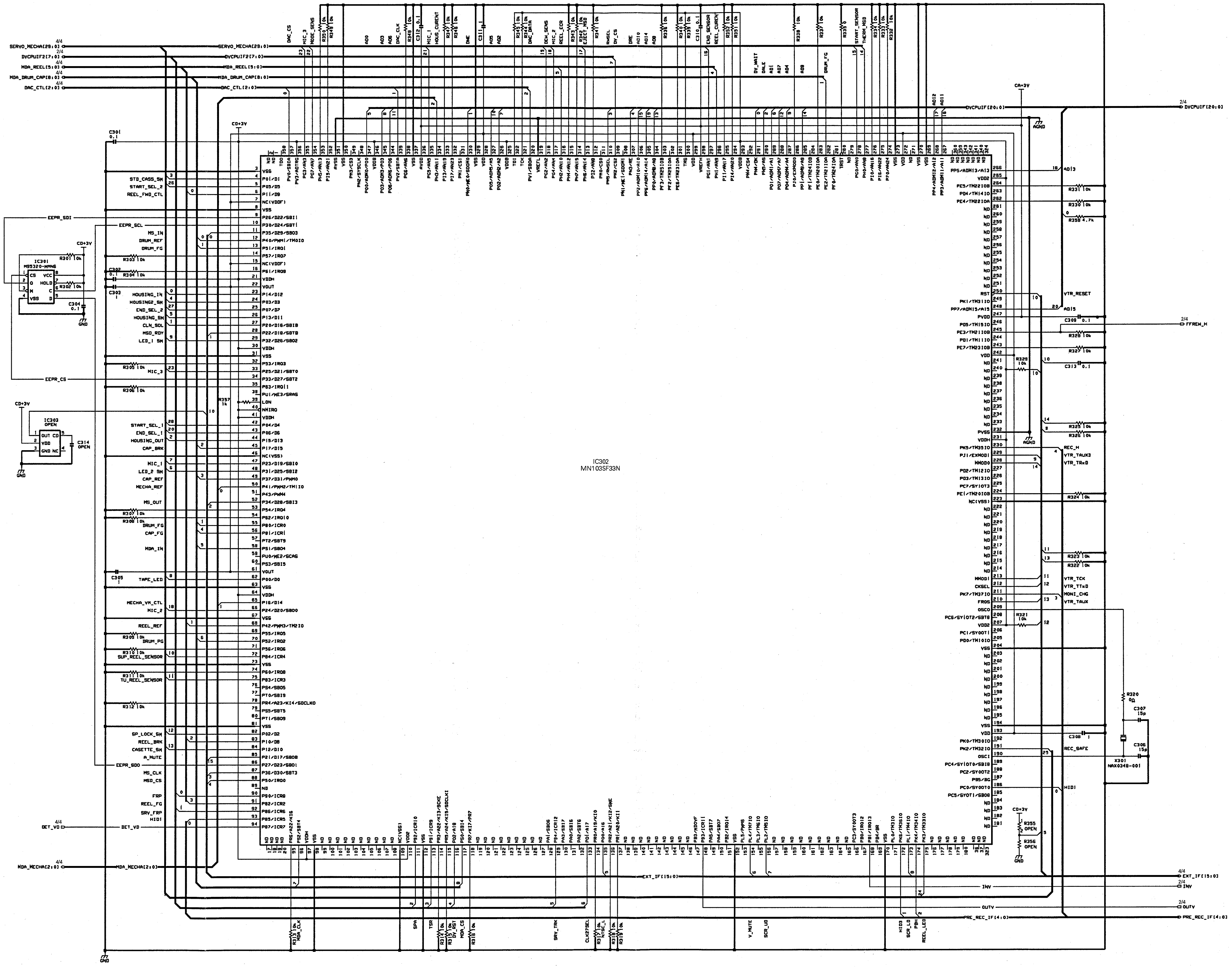
1 1 DV/CPU
REC CTL
REC H
PB H
TL2
TL3
TL4
PRE_REC_IF[1]
PRE_REC_IF[0]
PRE_REC_IF[2]
PRE_REC_IF[4]
PB_ENV
HID3
HID1
PB_H
REC_H
D+3V
+2.5V
C21 0.1
C20 0.1
C19 10/16
C18 0.1
L4 10u
PR+5V
C17 0.1
R11 4.7k
R12 22k
R10 22k
C24 0.047
C23 0.047
C22 0.047
C26 0.1
C25 220p
C27 0.1
C28 0.001
C29 0.1
R13 0Ω
C30 0.1
C31 4.7
C32 0.1
C33 0.1
C34 4.7
AGC_GAIN
DUMP_CTL
ATF_GAIN
REC_ADJ
REC_CTL
VREF_1.1
AGC OUT
TL1
AGC_OUT
VRB_AGC
VRB_ATF
ATF_IN
REF_CLK
REC_CLK
REC_DATA
PRE_REC_IF[3]
MONI_CHG
PB_MONI
DCS_C3
DCS_C2
DCS_C1
R_CTL
VCC5
REC_H
PB_H
HID1
HID2
HID3
VDD3
DUMP
PBIN_R
HEAD_GND
PB_OUT
AGC_IN
AGC_CTL
AGC_DET
PB_GND
AGC_OUT
AGC_BUFF_IN
REG_1.1V
AGC_BUFF_OUT
VRB_AGC
MAIN_GND
ATF_GAIN
VCA_OUT
ATF_IN
VRB_ATF
ATF_OUT
AGC
BIAS
MIX
REC GAIN
IC1
JCY0132
DX3
X3
Y3
DY3
DX2
X2
Y2
DY2
DX1
X1
Y1
DY1
R9 240
R8 240
R7 240
R6 240
ATF_GND
MUSIN_EVR
PB_GND
TC
ADREF
REF_CLK
REC_DATA
REC_GND
REC_CLK
REC_GAIN
VCC3
MONI_CHG
HEAD_VCC
REC_R
HEAD_GND
C3 0.1
C4 0.1
C5 0.047
R3 470
C6 0.1
C7 0.022
R14 100
R5 1k
L2 10u
PR+5V
C16 10/16
C12 0.1
C11 0.1
IC2
TC7SH00FU-X
K1
C1 0.1
C2 0.1
R1 OPEN
R2 OPEN
C35 0.1
IC3
TC7SH00FU-X
L1 10u
L3 10u
A+3V
C8 0.1
C9 0.1
C10 10/10
R4 100k
C13 10/10
C15 0.1
C14 0.1
GND
CN107
GND 8
1F 7
1S 6
GND 5
GND 4
2F 3
2S 2
GND 1
FROM/TO ROTALY TRANS

– DV/CPU SCHEMATIC DIAGRAM 2/4 –

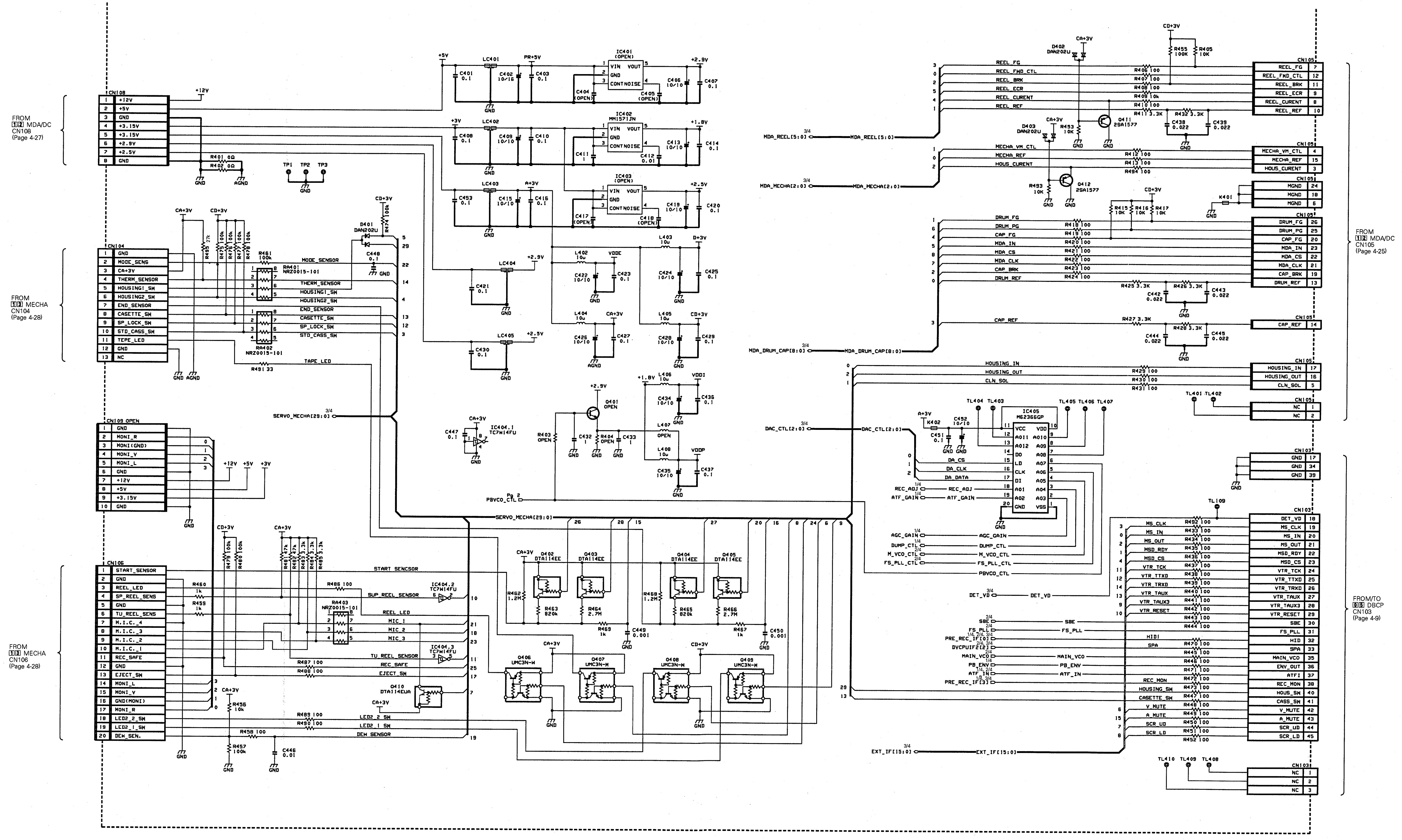


IC103
JCY0152
ECC
COMP
SHUFF
ECC
DE COMP
DE SHUFF
PB DE FORMAT
REC FORMAT
VITERBI
DV EQ
IC101
TLC2940IPW-X
IC102
JCY0136-X
IC107
TC7W53FU
Q101
Q102
DTC143EUA-X
IC104
SN74AHC574AP
IC105
SN74AHC574
IC106
SN74AHC245
X101
NAX0141-001X
X102
NAX0206-001X
L102
NOR0276-001X
D101
EC2C01C-X
D102
EC2C01C
D103
EC2C01C
RA101
NRZ0015-102
RA104
RA105
RA106
RA107
NRZ0015-330
DVCPUIF[20:0]
DVCPUIF2[7:0]
OUTV
INV
FS_PLL
FS_PLL_CTL
DV_WAIT
DV_CS
RWSEL
DRE
DWE
DALE
DV_RST
CLK27SEL
AGC_OUT
SBC
MAIN_VCO
VRB_ATF
PRE_REC_IF[0]
VREF_1
PBVCO_CTL
VRB_AGC
REC_DATA
REC_CLK
REC_CTL
ATF_IN
REF_CLK
M_VCO_CTL
FFREW_H
SRV_TRK
SRV_FRP
TSR
FRP
SPA
A/D
VCO
D/A
D+3V
+2.5V
VDDE
VDDI
VDDP
GND
TL101
TL102
TL103
TL104
TL105
TL106
TL107
TL108
TL110
CN102
OUTV 2
OUTH 3
GND 1
GND 4
GND 29
CN102
NC 30
CN102
INV 5
INH 6
CN102
RECDATA0 21
RECDATA1 22
RECDATA2 23
RECDATA3 24
RECDATA4 25
RECDATA5 26
RECDATA6 27
RECDATA7 28
GND 20
CN102
PBDATA0 12
PBDATA1 13
PBDATA2 14
PBDATA3 15
PBDATA4 16
PBDATA5 17
PBDATA6 18
PBDATA7 19
GND 11
FROM/TO
05 DBCP
CN102
(Page 4-11)
CN103
AIMCK 11
DOLRCK 12
DOBCK 13
AODAT0 14
AODAT1 15
CN103
AIDAT1 9
DIDAT 8
DIMCK 7
DIBCK 6
DILRCK 5
AIDAT0 10
GND 4
GND 16
FROM/TO
05 DBCP
CN103
(Page 4-9)
CN102
RESERVE 8
GND 7
CN102
DVI27M 10
GND 9
FROM/TO
05 DBCP
CN102
(Page 4-11)
CN101
GND 1
TPA+ 5
TPA- 4
TPB+ 3
TPB- 2
GND 6
FROM 21
PJNC
CN101
(Page 4-39)

— DV/CPU SCHEMATIC DIAGRAM 3/4 —

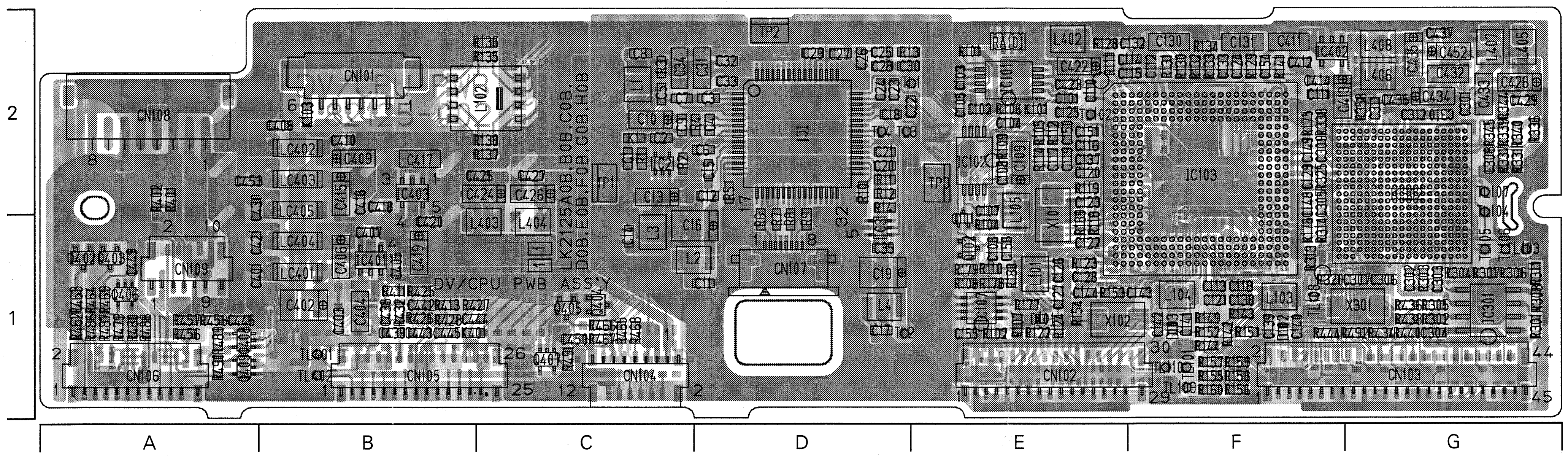

SERVO_MECHA[29:0]
DVCPUIF2[7:0]
MDA_REEL[5:0]
MDA_DRUM_CAP[8:0]
DAC_CTL[2:0]
DVCPUIF[20:0]
EEPR_SDI
EEPR_SCL
EEPR_CS
EEPR_SDO
IC301
IC303
OPEN
C301
C314
OPEN
CD+3V
CA+3V
GND
AGND
IC302
MN103SF33N
VTR_RESET
FFREW_H
REC_H
VTR_TAUX3
VTR_TRxD
VTR_TCK
VTR_TTxD
MONI_CHG
VTR_TAUX
REC_SAFE
X301
HIDI
R355
OPEN
R356
OPEN
DET_V0
MDA_MECHA[2:0]
EXT_IF[15:0]
INV
OUTV
PRE_REC_IF[4:0]

– DV/CPU SCHEMATIC DIAGRAM 4/4 –


FROM
12 MDA/DC
CN108
(Page 4-27)
CN108
+12V
+5V
GND
+3.15V
+3.15V
+2.9V
+2.5V
GND
R401 0Ω
R402 0Ω
GND
AGND
TP1 TP2 TP3
FROM
13 MECHA
CN104
(Page 4-28)
CN104
GND
MODE_SENS
CA+3V
THERM_SENSOR
HOUSING1_SW
HOUSING2_SW
END_SENSOR
CASETTE_SW
SP_LOCK_SW
STD_CASS_SW
TEPE_LED
GND
NC
RA401 NRZ0015-101
RA402 NRZ0015-101
R461 100k
R491 33
D401 DAN202U
MODE_SENSOR
THERM_SENSOR
HOUSING1_SW
HOUSING2_SW
END_SENSOR
CASETTE_SW
SP_LOCK_SW
STD_CASS_SW
TAPE_LED
SERVO_MECHA[29:0]
CN109 OPEN
GND
MONI_R
MONI(GND)
MONI_V
MONI_L
GND
+12V
+5V
+3.15V
GND
FROM
13 MECHA
CN106
(Page 4-28)
CN106
START_SENSOR
GND
REEL_LED
SP_REEL_SENS
GND
TU_REEL_SENS
M.I.C._4
M.I.C._3
M.I.C._2
M.I.C._1
REC_SAFE
GND
EJECT_SW
MONI_L
MONI_V
GND(MONI)
MONI_R
LED2_2_SW
LED2_1_SW
DEW_SEN.
RA403 NRZ0015-101
IC404.2 TC7W14FU
IC404.3 TC7W14FU
START_SENCSOR
SUP_REEL_SENSOR
REEL_LED
MIC_1
MIC_2
MIC_3
TU_REEL_SENSOR
REC_SAFE
EJECT_SW
LED2_2_SW
LED2_1_SW
DEW_SENSOR
Q410 DTA114EUA
R456 10k
R457 100k
C446 0.01
IC401 (OPEN)
VIN VOUT
GND
CONTNOISE
IC402 MM1571JN
IC403 (OPEN)
LC401
LC402
LC403
LC404
LC405
PR+5V
+2.9V
+1.8V
+2.5V
L402 10u
L403 10u
L404 10u
L405 10u
L406 10u
L407 OPEN
L408 10u
VDDE
D+3V
VDDI
VDDP
Q401 OPEN
R403 OPEN
R404 OPEN
IC404.1 TC7W14FU
PBVCO_CTL
SERVO_MECHA[29:0]
Q402 DTA114EE
Q403 DTA114EE
Q404 DTA114EE
Q405 DTA114EE
Q406 UMC3N-W
Q407 UMC3N-W
Q408 UMC3N-W
Q409 UMC3N-W
R462 1.2M
R463 820k
R464 2.7M
R465 820k
R466 2.7M
R467 1k
R468 1.2M
R469 1k
C449 0.001
C450 0.001
MDA_REEL[5:0]
MDA_MECHA[2:0]
MDA_DRUM_CAP[8:0]
DAC_CTL[2:0]
REEL_FG
REEL_FWD_CTL
REEL_BRK
REEL_ECR
REEL_CURENT
REEL_REF
D402 DAN202U
D403 DAN202U
Q411 2SA1577
Q412 2SA1577
MECHA_VM_CTL
MECHA_REF
HOUS_CURENT
DRUM_FG
DRUM_PG
CAP_FG
MDA_IN
MDA_CS
MDA_CLK
CAP_BRK
DRUM_REF
CAP_REF
HOUSING_IN
HOUSING_OUT
CLN_SOL
FROM
12 MDA/DC
CN105
(Page 4-25)
CN105
MGND
NC
IC405 M62366GP
VCC VDD
AO11 AO10
AO12 AO9
DO AO8
LD AO7
CLK AO6
DI AO5
AO1 AO4
AO2 AO3
GND VSS
DA_CS
DA_CLK
DA_DATA
REC_ADJ
ATF_GAIN
AGC_GAIN
DUMP_CTL
M_VCO_CTL
FS_PLL_CTL
PBVCO_CTL
DET_VD
SBE
FS_PLL
PRE_REC_IF[0]
DVCPUIF2[2]
MAIN_VCO
PB_ENV
ATF_IN
PRE_REC_IF[3]
EXT_IF[15:0]
TL401 TL402 TL404 TL403 TL405 TL406 TL407 TL408 TL409 TL410 TL109
FROM/TO
05 DBCP
CN103
(Page 4-9)
CN103
GND
DET_VD
MS_CLK
MS_IN
MS_OUT
MSD_RDY
MSD_CS
VTR_TCK
VTR_TTXD
VTR_TRXD
VTR_TAUX
VTR_TAUX3
VTR_RESET
SBE
FS_PLL
HID1
SPA
MAIN_VCO
ENV_OUT
ATF1
REC_MON
HOUS_SW
CASS_SW
V_MUTE
A_MUTE
SCR_UD
SCR_LD
HOUSING_SW
CASETTE_SW
NC

4.11 DV/CPU CIRCUIT BOARD

– SIDE A –



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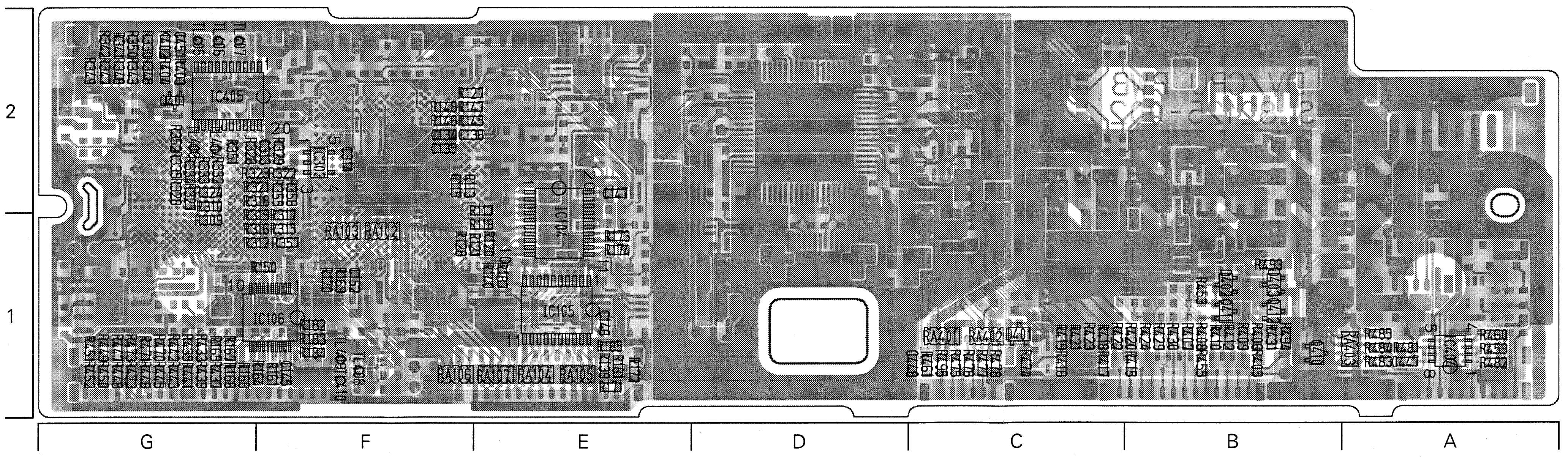


● **ADDRESS TABLE OF BOARD PARTS**

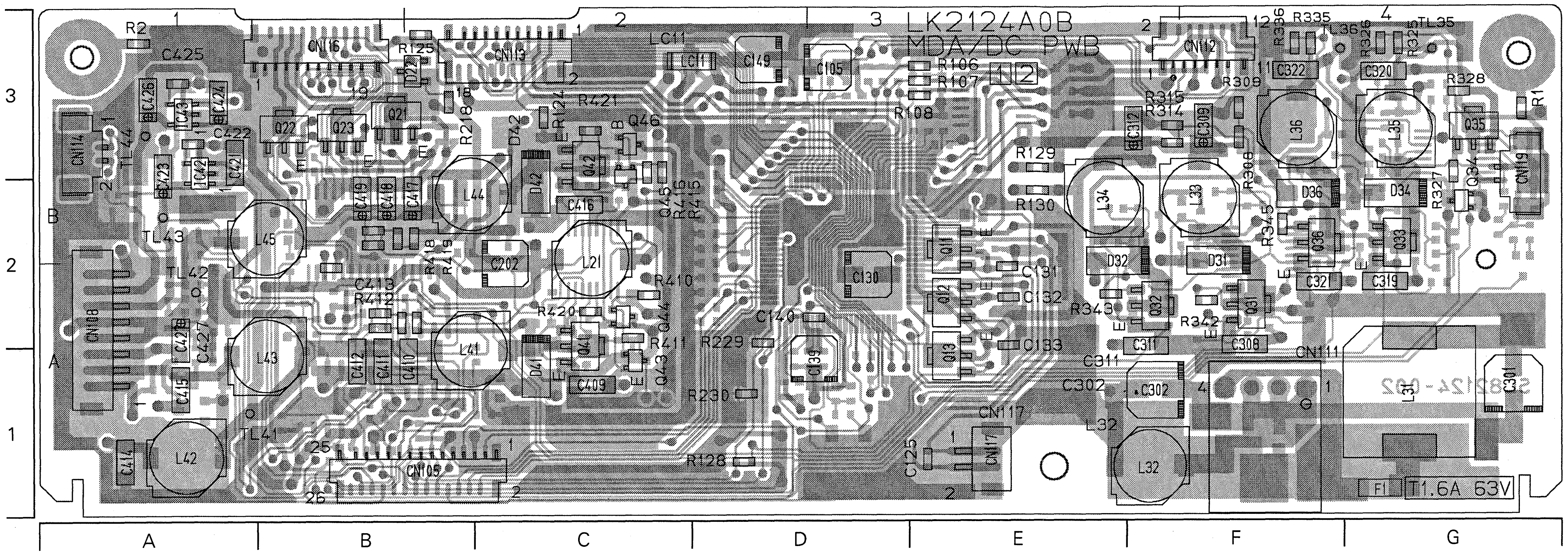
Each address may have an address error by one interval.

A-1C
Side
Y axis
X axis

IC1	A-2D	R136	A-2C	R339	A-2G	R473	B-1G	C119	A-2E	C439	A-1B
IC2	A-2C	R137	A-2C	R340	A-2G	R474	B-1C	C120	A-2E	C442	A-1B
IC3	A-1D	R138	A-2C	R341	B-2G	R475	B-1C	C121	A-1F	C443	A-1B
IC101	A-2E	R139	B-1E	R342	B-2G	R476	B-1C	C122	A-1E	C444	A-1B
IC102	A-2E	R140	B-1E	R343	B-2G	R477	B-1C	C123	A-2E	C445	A-1B
IC103	A-2F	R141	A-2F	R344	A-2G	R478	B-1C	C124	A-2F	C446	A-1A
IC104	B-1E	R142	A-1F	R345	A-2G	R479	A-1A	C125	A-2E	C447	B-1A
IC105	B-1E	R143	A-1F	R346	B-2G	R480	A-1A	C126	A-1E	C448	B-1C
IC106	B-1F	R144	A-1F	R347	B-2G	R481	B-1A	C127	A-1E	C449	A-1A
IC107	A-1E	R145	B-2F	R348	B-2G	R482	B-1A	C128	A-1E	C450	A-1C
IC301	A-1G	R146	B-2F	R349	B-2G	R483	B-1A	C129	A-2F	C451	B-2G
IC302	A-2G	R147	B-2F	R350	B-2G	R484	B-1A	C130	A-2F	C452	A-2G
IC303	B-2F	R148	B-2F	R351	B-2G	R485	B-1A	C131	A-2F	C453	A-2A
IC401	A-1B	R149	A-1F	R352	B-2G	R486	A-1A	C132	A-2F		
IC402	A-2F	R150	B-1F	R355	B-2F	R487	A-1A	C133	A-2F	X101	A-1E
IC403	A-2B	R151	A-1F	R356	B-2F	R488	A-1A	C134	B-2F	X102	A-1E
IC404	B-1A	R152	A-1F	R357	B-1F	R489	A-1A	C135	B-2F	X301	A-1G
IC405	B-2G	R153	A-1E	R358	A-2G	R490	A-1A	C136	B-2F		
		R154	A-1E	R401	A-2A	R491	A-1C	C137	A-2E	TP1	A-2C
Q101	A-1E	R155	A-1F	R402	A-2A	R492	A-1G	C138	A-1F	TP2	A-2D
Q102	A-1E	R156	A-1F	R403	B-2G	R493	B-1B	C139	A-1F	TP3	A-2E
Q401	B-2G	R157	A-1F	R404	B-2G	R494	B-1B	C140	A-1F		
Q402	A-1A	R158	A-1F	R405	B-1B	R495	B-1C	C141	A-1F	CN101	A-2B
Q403	A-1A	R159	A-1F	R406	B-1B			C142	A-1F	CN102	A-1E
Q404	A-1C	R160	A-1F	R407	B-1B	RA101	A-2E	C143	A-1F	CN103	A-1G
Q405	A-1C	R161	B-1F	R408	B-1B	RA102	B-1F	C144	A-1E	CN104	A-1C
Q406	A-1A	R164	B-1F	R409	B-1B	RA103	B-1F	C145	B-1F	CN105	A-1B
Q407	A-1C	R165	B-1G	R410	B-1B	RA104	B-1E	C146	B-1E	CN106	A-1A
Q408	A-1A	R166	B-1G	R411	A-1B	RA105	B-1E	C147	B-2E	CN107	A-1D
Q409	A-1A	R167	B-1G	R412	B-1B	RA106	B-1F	C148	A-2F	CN108	A-2A
Q410	B-1B	R168	B-1G	R413	A-1B	RA107	B-1E	C149	A-2F	CN109	A-1A
Q411	B-1B	R169	B-1F	R415	B-1B	RA401	B-1C	C150	A-2E		
Q412	B-1B	R170	B-1F	R416	B-1C	RA402	B-1C	C151	A-2E	K1	A-2C
		R171	B-1E	R417	B-1C	RA403	B-1A	C152	B-1F	K101	A-2E
D101	A-1E	R172	B-1E	R418	B-1C			C154	A-2F	K103	A-2B
D102	A-1F	R173	B-1E	R419	B-1C	C1	A-2C	C155	A-1E	K401	A-1B
D103	A-1F	R174	B-1E	R420	B-1B	C2	A-2C	C156	A-1E	K402	B-2G
D401	B-1C	R175	A-2F	R421	B-1C	C3	A-2D	C301	A-2G		
D402	B-1B	R176	A-1F	R422	B-1C	C4	A-2D	C302	A-1G	LC401	A-1B
D403	B-1B	R177	A-1E	R423	B-1C	C5	A-2C	C303	A-1G	LC402	A-2B
		R178	A-1E	R424	B-1B	C6	A-2D	C304	A-1G	LC403	A-2B
R1	A-2C	R179	A-1E	R425	A-1B	C7	A-2C	C305	A-2F	LC404	A-1B
R2	A-2C	R180	A-1E	R426	A-1B	C8	A-2C	C306	A-1G	LC405	A-2B
R3	A-2C	R181	B-1E	R427	A-1B	C9	A-2C	C307	A-1G		
R4	A-2D	R182	B-1F	R428	A-1B	C10	A-2C	C308	A-2G	L1	A-2C
R5	A-2D	R183	B-1F	R429	B-1B	C11	A-1D	C309	A-2F	L2	A-1C
R6	A-1D	R184	B-1F	R430	B-1B	C12	A-2D	C310	A-2G	L3	A-1C
R7	A-1D	R185	B-1E	R431	B-1B	C13	A-2C	C311	A-2G	L4	A-1D
R8	A-1D	R187	B-1E	R432	A-1B	C14	A-1C	C312	A-2G	L101	A-1E
R9	A-1D	R189	A-1E	R433	B-1G	C15	A-2D	C313	B-2F	L102	A-2C
R10	A-2D	R301	A-1G	R434	A-1G	C16	A-1D	C314	B-2F	L103	A-1F
R11	A-2D	R302	A-1G	R435	B-1G	C17	A-1D	C401	A-1A	L104	A-1F
R12	A-2D	R303	A-1G	R436	A-1G	C18	A-2D	C402	A-1B	L105	A-2E
R13	A-2D	R304	A-1G	R437	B-1G	C19	A-1D	C403	A-1B	L402	A-2E
R14	A-2D	R305	A-1G	R438	A-1G	C20	A-2D	C404	A-1B	L403	A-1C
R101	A-2E	R306	A-1G	R439	B-1G	C21	A-2D	C405	A-1B	L404	A-1C
R102	A-1E	R307	A-1G	R440	A-1G	C22	A-2E	C406	A-1B	L405	A-2G
R104	A-1E	R308	A-1G	R441	B-1G	C23	A-2D	C407	A-1B	L406	A-2G
R105	A-2E	R309	B-1G	R442	B-1G	C24	A-2D	C408	A-2B	L407	A-2G
R106	A-2E	R310	B-2G	R443	B-1G	C25	A-2D	C409	A-2B	L408	A-2G
R107	A-1E	R311	A-1G	R444	A-1F	C26	A-2D	C410	A-2B		
R108	A-1E	R312	B-1F	R445	B-1G	C27	A-2D	C411	A-2F	TL1	A-2E
R109	A-2E	R313	A-1F	R446	B-1G	C28	A-2D	C412	A-2F	TL2	A-1D
R110	A-1E	R314	A-1F	R447	B-1G	C29	A-2D	C413	A-2F	TL3	A-2D
R111	A-2E	R315	B-1F	R448	B-1G	C30	A-2D	C414	A-2F	TL4	A-2D
R112	A-2E	R316	B-1F	R449	B-1G	C31	A-2D	C415	A-2B	TL101	A-1F
R113	B-2F	R317	B-1F	R450	B-1G	C32	A-2D	C416	A-2B	TL102	A-2E
R114	A-2E	R318	B-2F	R451	B-1G	C33	A-2D	C417	A-2B	TL103	A-1G
R115	B-2F	R319	B-1F	R452	B-1G	C34	A-2C	C418	A-2B	TL104	A-2G
R116	B-1E	R320	A-1F	R453	B-1B	C35	A-1D	C419	A-1B	TL105	A-1G
R117	B-2E	R321	B-2F	R455	B-1B	C101	A-2E	C420	A-1B	TL106	A-1G
R118	A-1E	R322	B-2F	R456	A-1A	C102	A-2E	C421	A-1A	TL107	A-2G
R119	A-2E	R323	B-2F	R457	A-1A	C103	A-2E	C422	A-2E	TL108	A-1F
R120	B-1E	R324	B-2G	R458	A-1A	C104	A-2E	C423	A-2E	TL109	A-1F
R121	B-1E	R325	A-2F	R459	B-1A	C105	A-2E	C424	A-2C	TL110	A-1F
R122	A-1E	R326	B-2G	R460	B-1A	C106	A-1E	C425	A-2C	TL401	A-1B
R123	A-1E	R327	B-2G	R461	B-1C	C107	A-2E	C426	A-2C	TL402	A-1B
R124	A-1E	R328	B-2G	R462	A-1A	C108	A-2E	C427	A-2C	TL403	B-2G
R126	B-1F	R329	B-2F	R463	A-1A	C109	A-2E	C428	A-2G	TL404	B-2G
R127	B-2F	R330	B-2G	R464	A-1A	C110	A-2E	C429	A-2G	TL405	B-2G
R128	A-2E	R331	A-2G	R465	A-1C	C111	A-2F	C430	A-2A	TL406	B-2G
R129	A-2F	R332	B-2G	R466	A-1C	C112	A-2F	C432	A-2G	TL407	B-2G
R130	A-2F	R333	B-2G	R467	A-1C	C113	A-1F	C433	A-2G	TL408	B-1F
R131	A-2F	R334	B-2G	R468	A-1C	C114	A-2F	C434	A-2G	TL409	B-1F
R132	A-2F	R335	B-2G	R469	A-1A	C115	A-2F	C435	A-2G	TL410	B-1F
R133	A-2F	R336	A-2G	R470	B-1G	C116	A-2E	C436	A-2G		
R134	A-2F	R337	A-2G	R471	B-1G	C117	A-2E	C437	A-2G		
R135	A-2C	R338	A-2F	R472	B-1G	C118	A-1F	C438	A-1B		

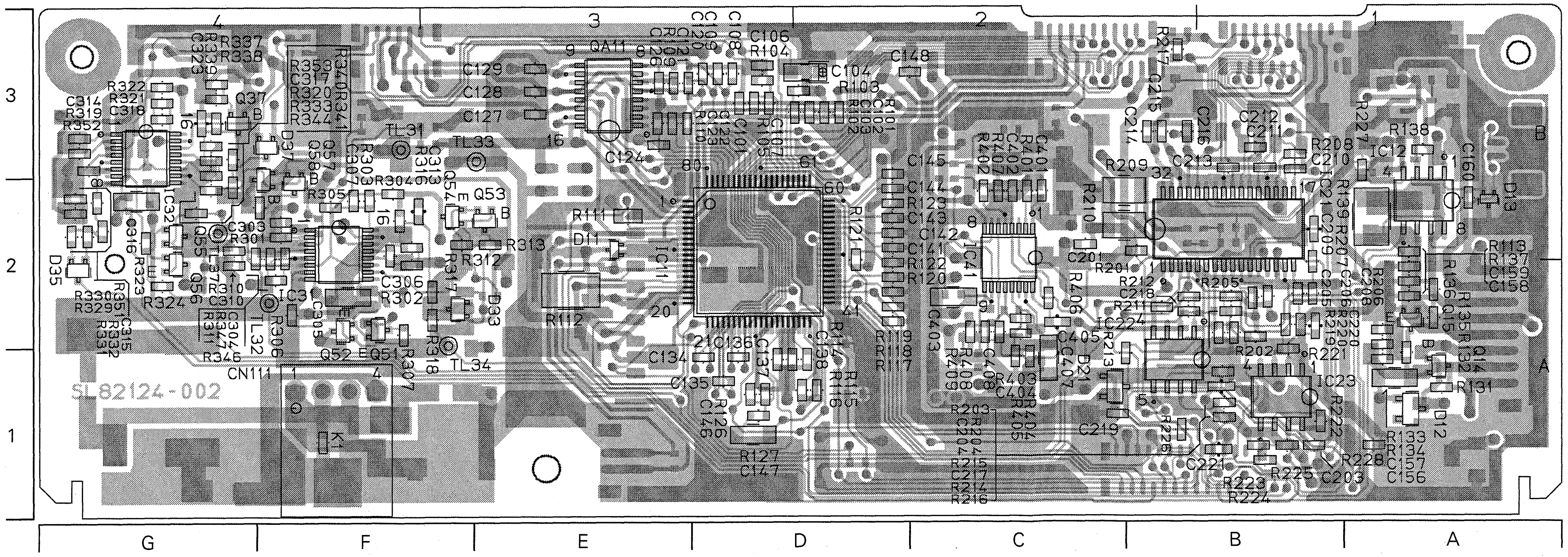
4.12 MDA/DC CIRCUIT BOARD

– SIDE A –



LK2124A0B
MDA/DC PWB
1
2
3
4
A
B
C
D
E
F
G
CN116
CN113
CN112
CN114
CN108
CN105
CN117
CN111
CN119
LC11
C149
C105
C130
IC42
IC43
L45
L43
L42
L44
L41
L21
L36
L35
L34
L33
L32
L31
D36
D34
D32
D31
D41
D42
Q21
Q22
Q23
Q41
Q42
Q43
Q44
Q45
Q46
Q11
Q12
Q13
Q31
Q32
Q33
Q34
Q35
Q36
C302
C311
C308
C319
C321
C320
C322
C312
C309
C202
C416
C409
C139
R2
R1
R128
R229
R230
R129
R130
TL41
TL42
TL43
TL44
TL35
SL82124-002
F1 T1.6A 63V

– SIDE B –



1
2
3
4
A
B
C
D
E
F
G
QA11
IC11
IC12
IC21
IC22
IC23
IC31
IC41
K1
CN111
SL82124-002
TL31
TL32
TL33
TL34
D11
D12
D13
D33
D35
D37
Q37
Q51
Q52
Q53
Q56
Q14
R112
R111
R127
C147
C148
C134
C135
C219
C221
C203
R223
R224
R225
R228
R113
R131
R138
C160

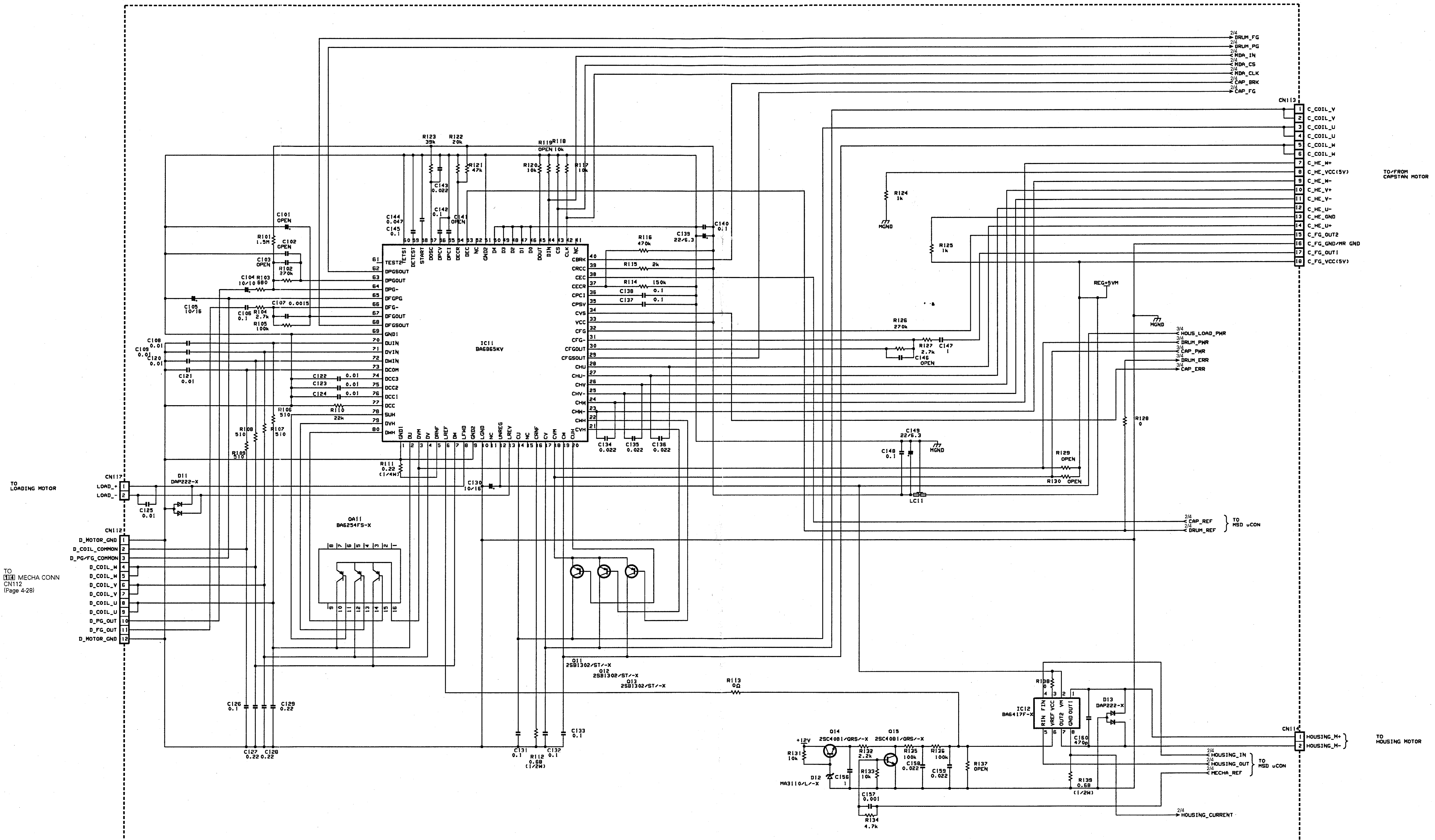
● **ADDRESS TABLE OF BOARD PARTS**

Each address may have an address error by one interval.

A-1C
Side — A; X axis — 1; Y axis — C

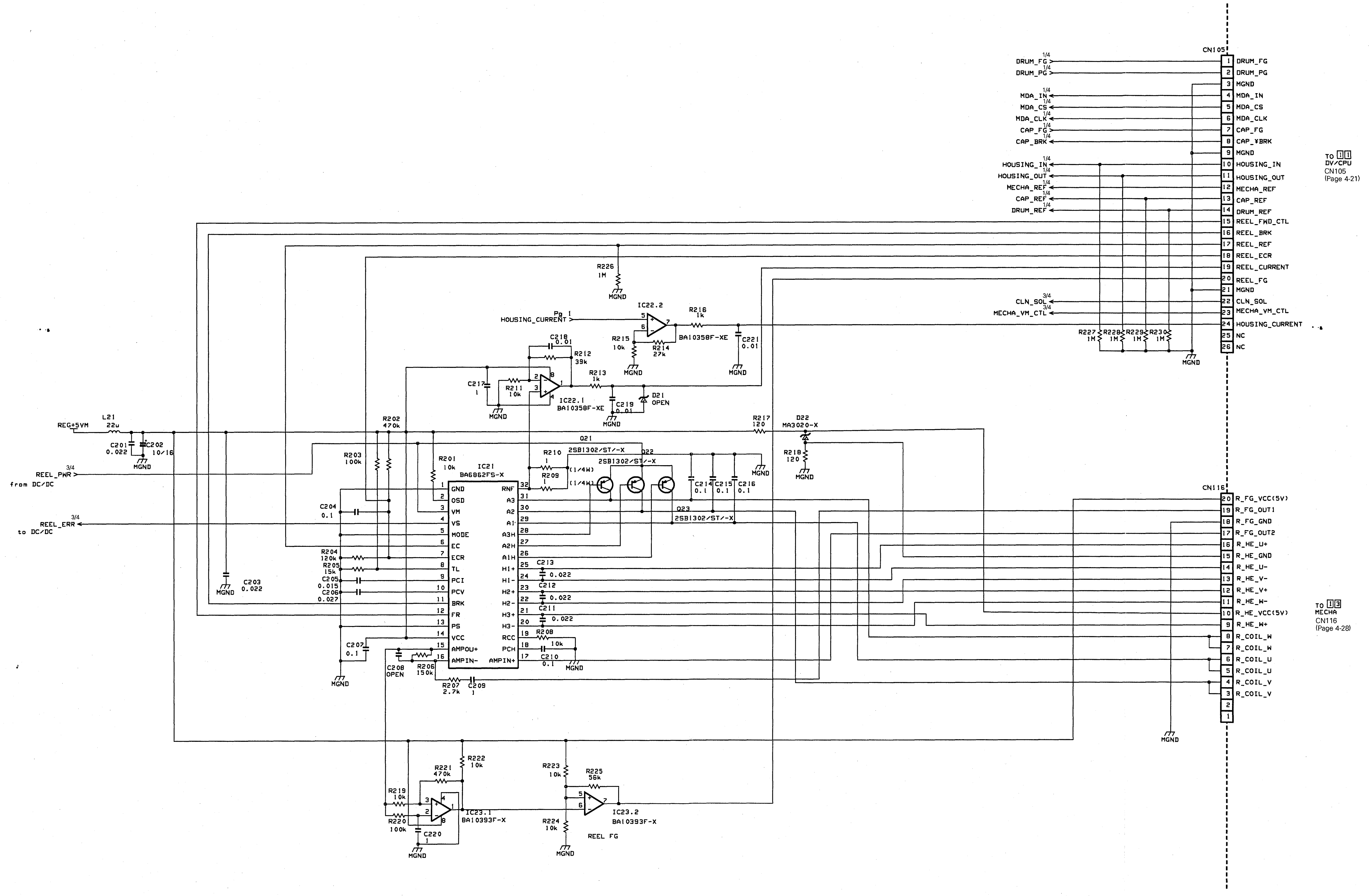
IC11	B-2D
IC12	B-2A
IC21	B-2B
IC22	B-1B
IC23	B-1B
IC31	B-2F
IC32	B-3G
IC41	B-2C
IC42	A-2A
IC43	A-3A
Q11	A-2E
Q12	A-2E
Q13	A-1E
Q14	B-1A
Q15	B-2A
Q21	A-3B
Q22	A-3B
Q23	A-3B
Q31	A-2F
Q32	A-2F
Q33	A-2G
Q34	A-2G
Q35	A-3G
Q36	A-2F
Q37	B-3G
Q41	A-1C
Q42	A-3C
Q43	A-1C
Q44	A-2C
Q45	A-2C
Q46	A-3C
Q51	B-2F
Q52	B-2F
Q53	B-2E
Q54	B-2F
Q55	B-2G
Q56	B-2G
Q57	B-2F
Q58	B-2F
D11	B-2E
D12	B-1A
D13	B-2A
D21	B-1C
D22	A-3B
D31	A-2F
D32	A-2E
D33	B-2F
D34	A-2G
D35	B-2G
D36	A-2F
D37	B-3F
D41	A-1C
D42	A-2C
R1	A-3G
R2	A-3A
R101	B-3D
R102	B-3D
R103	B-3D
R104	B-3D
R105	B-3D
R106	A-3E
R107	A-3E
R108	A-3E
R109	B-3E
R110	B-3E
R111	B-2E
R112	B-2E
R113	B-2A
R114	B-1D
R115	B-1D
R116	B-1D
R117	B-2D
R118	B-2D
R119	B-2D
R120	B-2D
R121	B-2D
R122	B-2D
R123	B-2D
R124	A-3C
R125	A-3B
R126	B-1D
R127	B-1D
R128	A-1D
R129	A-3E
R130	A-2E
R131	B-1A
R132	B-1A
R133	B-2A
R134	B-1A
R135	B-2A
R136	B-2A
R137	B-2A
R138	B-3A
R139	B-2A
R201	B-2B
R202	B-2B
R203	B-2B
R204	B-2B
R205	B-2B
R206	B-2B
R207	B-2B
R208	B-3B
R209	B-2C
R210	B-2C
R211	B-2B
R212	B-2B
R213	B-1C
R214	B-1B
R215	B-1B
R216	B-1B
R217	B-3B
R218	A-3B
R219	B-2B
R220	B-2B
R221	B-1B
R222	B-1B
R223	B-1B
R224	B-1B
R225	B-1B
R226	B-1B
R227	B-2A
R228	B-1A
R229	A-1D
R230	A-1D
R301	B-2F
R302	B-2F
R303	B-2F
R304	B-2F
R305	B-2F
R306	B-2F
R307	B-2F
R308	A-3F
R309	A-3F
R310	B-2G
R311	B-2G
R312	B-2F
R313	B-2E
R314	A-3F
R315	A-3F
R316	B-2F
R317	B-2F
R318	B-2F
R319	B-3G
R320	B-2G
R321	B-3G
R322	B-3G
R323	B-2G
R324	B-2G
R325	A-3G
R326	A-3G
R327	A-2G
R328	A-3G
R329	B-2G
R330	B-2G
R331	B-2G
R332	B-2G
R333	B-2G
R334	B-2F
R335	A-3F
R336	A-3F
R337	B-3G
R338	B-3G
R339	B-3G
R340	B-3G
R341	B-2G
R342	A-2F
R343	A-2E
R344	B-2G
R345	A-2F
R346	B-2F
R347	B-2F
R348	B-2F
R351	B-2G
R352	B-3G
R353	B-3G
R401	B-2C
R402	B-2C
R403	B-2C
R404	B-1C
R405	B-1C
R406	B-2C
R407	B-2C
R408	B-2C
R409	B-2C
R410	A-2C
R411	A-2C
R412	A-2B
R413	A-2B
R414	A-2B
R415	A-2C
R416	A-2C
R417	A-2B
R418	A-2B
R419	A-2B
R420	A-2C
R421	A-3C
C101	B-3D
C102	B-3D
C103	B-3D
C104	B-3D
C105	A-3D
C106	B-3D
C107	B-3D
C108	B-3D
C109	B-3D
C120	B-3D
C121	B-3E
C122	B-3E
C123	B-3E
C124	B-3E
C125	A-1E
C126	B-3E
C127	B-3E
C128	B-3E
C129	B-3E
C130	A-2D
C131	A-2E
C132	A-2E
C133	A-1E
C134	B-1D
C135	B-1D
C136	B-1D
C137	B-1D
C138	B-1D
C139	A-1D
C140	A-2D
C141	B-2D
C142	B-2D
C143	B-2D
C144	B-2D
C145	B-2D
C146	B-1D
C147	B-1D
C148	B-3C
C149	A-3D
C156	B-1A
C157	B-1A
C158	B-2A
C159	B-2A
C160	B-2A
C201	B-2C
C202	A-2C
C203	B-1B
C204	B-2B
C205	B-2B
C206	B-2B
C207	A-2B
C208	B-2B
C209	B-2B
C210	B-2B
C211	B-3B
C212	B-3B
C213	B-3B
C214	B-3B
C215	B-3B
C216	B-3B
C217	B-1B
C218	B-2B
C219	B-1C
C220	B-2B
C221	B-1B
C301	A-1G
C302	A-1F
C303	B-2F
C304	B-2F
C305	B-2F
C306	B-2F
C307	B-2F
C308	A-1F
C309	A-3F
C310	B-2G
C311	A-1F
C312	A-3F
C313	B-2F
C314	B-3G
C315	B-2G
C316	B-2G
C317	B-3G
C318	B-3G
C319	A-2G
C320	A-3G
C321	A-2F
C322	A-3F
C323	B-3G
C401	B-2C
C402	B-2C
C403	B-2C
C404	B-2C
C405	B-2C
C407	B-1C
C408	B-2C
C409	A-1C
C410	A-1B
C411	A-1B
C412	A-1B
C413	A-2B
C414	A-1A
C415	A-1A
C416	A-2C
C417	A-2B
C418	A-2B
C419	A-2B
C420	A-2B
C421	A-3A
C422	A-3A
C423	A-2A
C424	A-3A
C425	A-3A
C426	A-3A
C427	A-2A
CN105	A-1B
CN108	A-2A
CN111	A-1F
CN112	A-3F
CN113	A-3C
CN114	A-3A
CN116	A-3B
CN117	A-1E
CN119	A-2G
K1	B-1F
LC11	A-3C
F1	A-1G
L21	A-2C
L31	A-1G
L32	A-1F
L33	A-2F
L34	A-2E
L35	A-3G
L36	A-3F
L41	A-1B
L42	A-1A
L43	A-1B
L44	A-2B
L45	A-2B
QA11	B-3E
TL31	B-3F
TL32	B-2F
TL33	B-3E
TL34	B-1F
TL35	A-3G
TL36	A-3F
TL37	B-2G
TL41	A-1A
TL42	A-2A
TL43	A-2A
TL44	A-3A

4.13 MDA/DC SCHEMATIC DIAGRAM 1/4

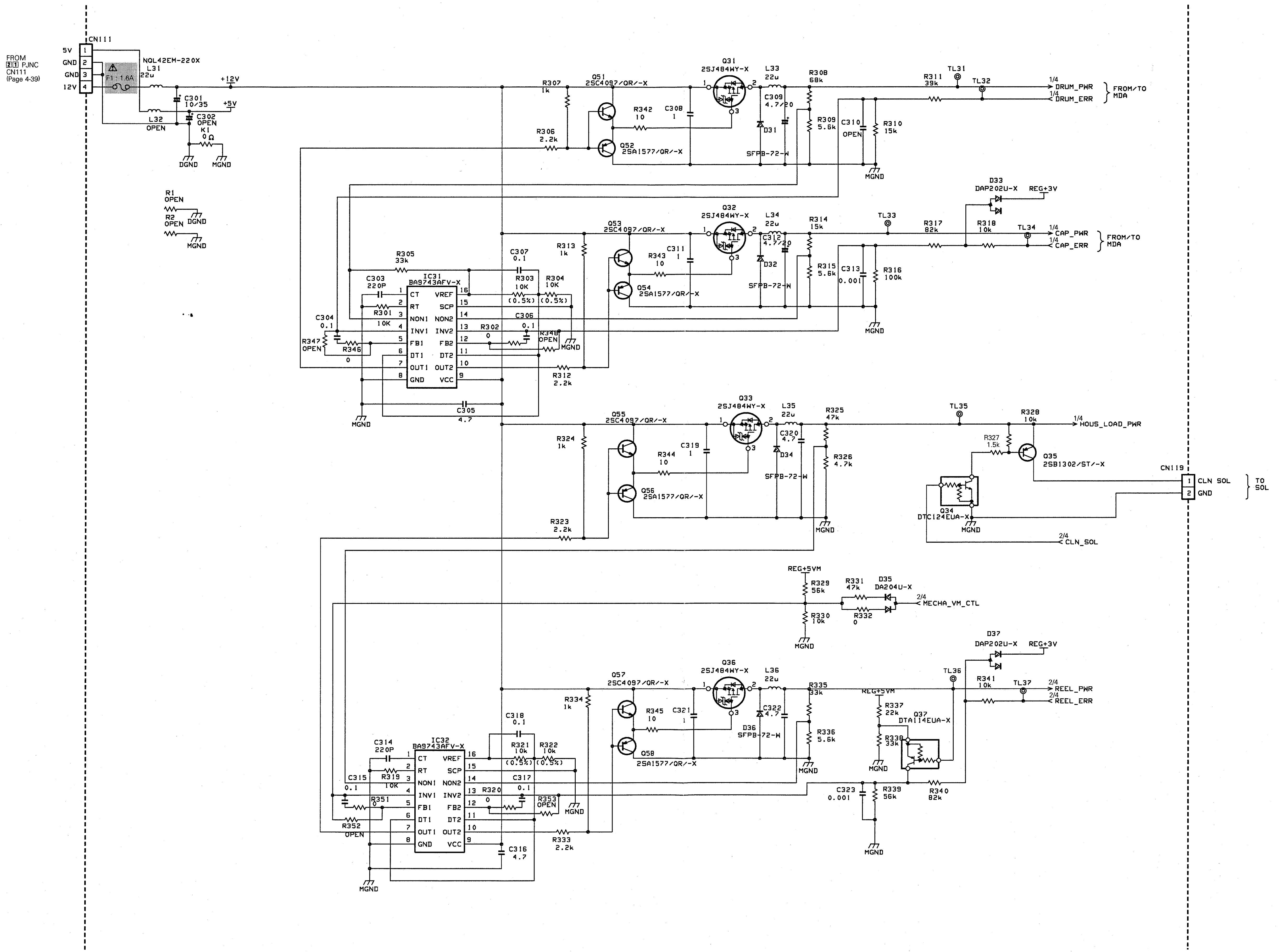


IC11
BA6865KV
QA11
BA6254FS-X
IC12
BA6417F-X
Q11
2SB1302/ST/-X
Q12
2SB1302/ST/-X
Q13
2SB1302/ST/-X
Q14
2SC4081/QRS/-X
Q15
2SC4081/QRS/-X
D11
DAP222-X
D12
MA3110/L/-X
D13
DAP222-X
LC11
REG+5VM
MGND
+12V
2/4 DRUM_FG
2/4 DRUM_PG
2/4 MDA_IN
2/4 MDA_CS
2/4 MDA_CLK
2/4 CAP_BRK
2/4 CAP_FG
CN113
C_COIL_V
C_COIL_V
C_COIL_U
C_COIL_U
C_COIL_W
C_COIL_W
C_HE_W+
C_HE_VCC(5V)
C_HE_W-
C_HE_V+
C_HE_V-
C_HE_U-
C_HE_GND
C_HE_U+
C_FG_OUT2
C_FG_GND/MR GND
C_FG_OUT1
C_FG_VCC(5V)
TO/FROM CAPSTAN MOTOR
3/4 HOUS_LOAD_PWR
3/4 DRUM_PWR
3/4 CAP_PWR
3/4 DRUM_ERR
3/4 CAP_ERR
2/4 CAP_REF
2/4 DRUM_REF
TO MSD uCON
CN117
LOAD_+
LOAD_-
TO LOADING MOTOR
CN112
D_MOTOR_GND
D_COIL_COMMON
D_PG/FG_COMMON
D_COIL_W
D_COIL_W
D_COIL_V
D_COIL_V
D_COIL_U
D_COIL_U
D_PG_OUT
D_FG_OUT
D_MOTOR_GND
TO MECHA CONN CN112 (Page 4-28)
CN114
HOUSING_M+
HOUSING_M-
TO HOUSING MOTOR
2/4 HOUSING_IN
2/4 HOUSING_OUT
2/4 MECHA_REF
TO MSD uCON
2/4 HOUSING_CURRENT
TEST2 DPGSOUT DPGOUT DPG- DFGPG DFG- DFGOUT DFGSOUT GND1 DUIN DVIN DWIN DCOM DCC3 DCC2 DCC1 DCC SUH DVH DWH
CBRK CRCC CEC CECR CPC1 CPSV CVS VCC CFG CFG- CFGOUT CFGSOUT CHU CHU- CHV CHV- CHW CHW- CHH CVH
TETS1 DETEST START DOSC DPCV DPC1 DECR DEC NC GND2 D4 D3 D2 D1 D0 DOUT DIR CS CLK NC
GND1 DU DVM DV DRNF LREF DH LPWR LGND2 LGND NC UNREG LREV CU NC CRNF CV CVM CW CUH
RIN FIN VREF VCC OUT2 VM GND OUT1
R101 1.5M
R102 270k
R103 680
R104 2.7k
R105 100k
R106 510
R107 510
R108 510
R109 510
R110 22k
R111 0.22 (1/4W)
R112 0.68 (1/2W)
R113 0Ω
R114 150k
R115 2k
R116 470k
R117 10k
R118 10k
R119 OPEN
R120 10k
R121 47k
R122 20k
R123 39k
R124 1k
R125 1k
R126 270k
R127 2.7k
R128 0
R129 OPEN
R130 OPEN
R131 10k
R132 2.2k
R133 10k
R134 4.7k
R135 100k
R136 100k
R137 OPEN
R138 0
R139 0.68 (1/2W)
C101 OPEN
C102 OPEN
C103 OPEN
C104 10/10
C105 10/16
C106 0.1
C107 0.0015
C108 0.01
C109 0.01
C120 0.01
C121 0.01
C122 0.01
C123 0.01
C124 0.01
C125 0.01
C126 0.1
C127 0.22
C128 0.22
C129 0.22
C130 10/16
C131 0.1
C132 0.1
C133 0.1
C134 0.022
C135 0.022
C136 0.022
C137 0.1
C138 0.1
C139 22/6.3
C140 0.1
C141 OPEN
C142 0.1
C143 0.022
C144 0.047
C145 0.1
C146 OPEN
C147 1
C148 0.1
C149 22/6.3
C156 1
C157 0.001
C158 0.022
C159 0.022
C160 470p

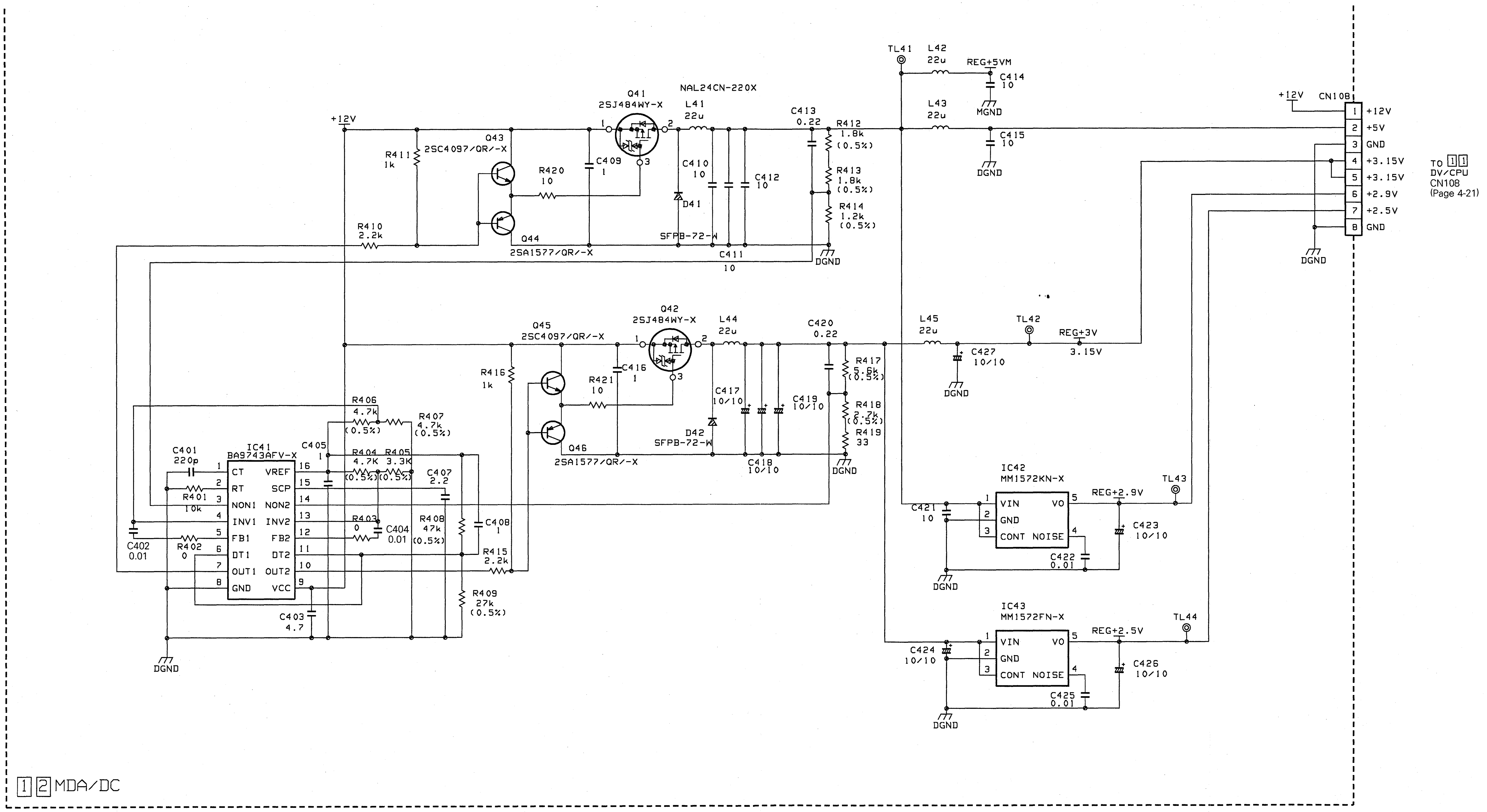
– MDA/DC SCHEMATIC DIAGRAM 2/4 –


CN105
1 DRUM_FG
2 DRUM_PG
3 MGND
4 MDA_IN
5 MDA_CS
6 MDA_CLK
7 CAP_FG
8 CAP_¥BRK
9 MGND
10 HOUSING_IN
11 HOUSING_OUT
12 MECHA_REF
13 CAP_REF
14 DRUM_REF
15 REEL_FWD_CTL
16 REEL_BRK
17 REEL_REF
18 REEL_ECR
19 REEL_CURRENT
20 REEL_FG
21 MGND
22 CLN_SOL
23 MECHA_VM_CTL
24 HOUSING_CURRENT
25 NC
26 NC
TO 11
DV/CPU
CN105
(Page 4-21)
1/4 DRUM_FG
1/4 DRUM_PG
1/4 MDA_IN
1/4 MDA_CS
1/4 MDA_CLK
1/4 CAP_FG
1/4 CAP_BRK
1/4 HOUSING_IN
1/4 HOUSING_OUT
1/4 MECHA_REF
1/4 CAP_REF
1/4 DRUM_REF
3/4 CLN_SOL
3/4 MECHA_VM_CTL
R227 1M
R228 1M
R229 1M
R230 1M
MGND
R226 1M
MGND
Pg 1 HOUSING_CURRENT
IC22.2
R216 1k
R215 10k
R214 27k
BA10358F-XE
C221 0.01
MGND
C218 0.01
R212 39k
C217 1
R211 10k
IC22.1
BA10358F-XE
R213 1k
C219 0.01
D21 OPEN
MGND
REG+5VM
L21 22u
C201 0.022
C202 10/16
MGND
3/4 REEL_PWR
from DC/DC
3/4 REEL_ERR
to DC/DC
R202 470k
R203 100k
R201 10k
IC21
BA6862FS-X
1 GND
2 OSD
3 VM
4 VS
5 MODE
6 EC
7 ECR
8 TL
9 PCI
10 PCV
11 BRK
12 FR
13 PS
14 VCC
15 AMPOU+
16 AMPIN-
32 RNF
31 A3
30 A2
29 A1
28 A3H
27 A2H
26 A1H
25 H1+
24 H1-
23 H2+
22 H2-
21 H3+
20 H3-
19 RCC
18 PCH
17 AMPIN+
C204 0.1
R204 120k
R205 15k
C205 0.015
C206 0.027
C203 0.022
MGND
C207 0.1
MGND
C208 OPEN
R206 150k
R207 2.7k
C209 1
C213 0.022
C212 0.022
C211 0.022
R208 10k
C210 0.1
MGND
R210 1
R209 1
(1/4W)
(1/4W)
Q21 2SB1302/ST/-X
Q22 2SB1302/ST/-X
Q23 2SB1302/ST/-X
C214 0.1
C215 0.1
C216 0.1
MGND
R217 120
D22 MA3020-X
R218 120
MGND
CN116
20 R_FG_VCC(5V)
19 R_FG_OUT1
18 R_FG_GND
17 R_FG_OUT2
16 R_HE_U+
15 R_HE_GND
14 R_HE_U-
13 R_HE_V-
12 R_HE_V+
11 R_HE_W-
10 R_HE_VCC(5V)
9 R_HE_W+
8 R_COIL_W
7 R_COIL_W
6 R_COIL_U
5 R_COIL_U
4 R_COIL_V
3 R_COIL_V
2
1
TO 13
MECHA
CN116
(Page 4-28)
MGND
R222 10k
R221 470k
R219 10k
R220 100k
IC23.1
BA10393F-X
C220 1
MGND
R223 10k
R225 56k
IC23.2
BA10393F-X
R224 10k
REEL FG
MGND

– MDA/DC SCHEMATIC DIAGRAM 3/4 –

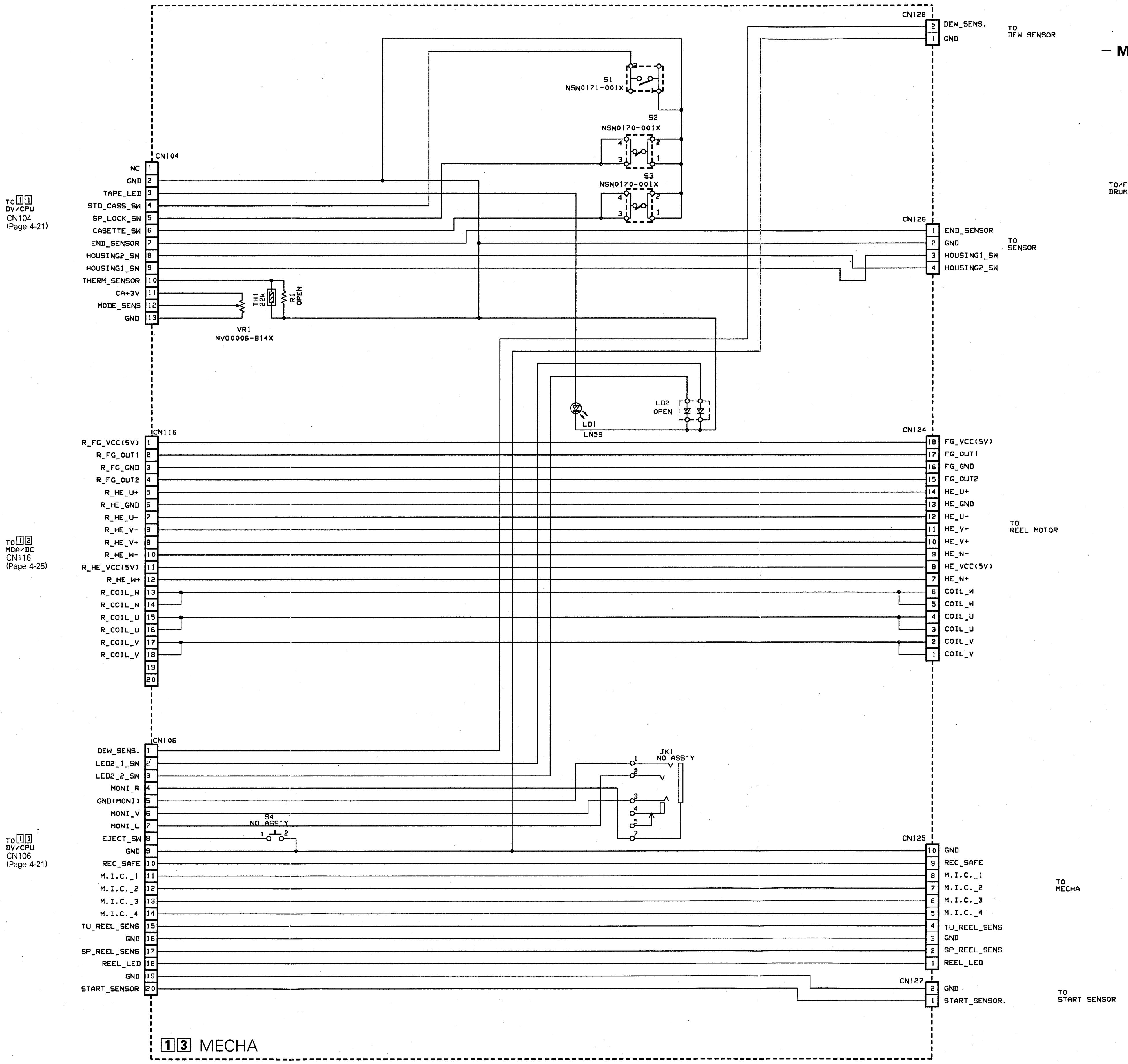

FROM
2|1 PJNC
CN111
(Page 4-39)
CN111
5V
GND
GND
12V
NQL42EM-220X
F1 : 1.6A
L31
22u
+12V
C301
10/35
+5V
L32
OPEN
C302
OPEN
K1
0 Ω
DGND
MGND
R1
OPEN
R2
OPEN
DGND
MGND
R307
1k
Q51
2SC4097/QR/-X
Q31
2SJ484WY-X
L33
22u
R308
68k
R311
39k
TL31
TL32
1/4
DRUM_PWR
1/4
DRUM_ERR
FROM/TO
MDA
R342
10
C308
1
C309
4.7/20
R309
5.6k
C310
OPEN
R310
15k
R306
2.2k
Q52
2SA1577/QR/-X
D31
SFPB-72-W
MGND
D33
DAP202U-X
REG+3V
Q32
2SJ484WY-X
L34
22u
Q53
2SC4097/QR/-X
R314
15k
TL33
R317
82k
R318
10k
TL34
1/4
CAP_PWR
1/4
CAP_ERR
FROM/TO
MDA
R313
1k
C311
1
R343
10
C312
4.7/20
D32
R315
5.6k
C313
0.001
R316
100k
Q54
2SA1577/QR/-X
SFPB-72-W
MGND
R305
33k
C307
0.1
IC31
BA9743AFV-X
C303
220P
R303
10K
(0.5%)
R304
10K
(0.5%)
CT
VREF
RT
SCP
NON1
NON2
INV1
INV2
FB1
FB2
DT1
DT2
OUT1
OUT2
GND
VCC
R301
10K
C304
0.1
R302
0
C306
0.1
R348
OPEN
MGND
R347
OPEN
R346
0
R312
2.2k
C305
4.7
MGND
Q33
2SJ484WY-X
L35
22u
R325
47k
TL35
R328
10k
1/4
HOUS_LOAD_PWR
Q55
2SC4097/QR/-X
R324
1k
C319
1
R344
10
C320
4.7
D34
R326
4.7k
R327
1.5k
Q35
2SB1302/ST/-X
CN119
CLN SOL
GND
TO
SOL
Q56
2SA1577/QR/-X
SFPB-72-W
Q34
DTC124EUA-X
MGND
R323
2.2k
2/4
CLN_SOL
REG+5VM
R329
56k
R331
47k
D35
DA204U-X
2/4
MECHA_VM_CTL
R330
10k
R332
0
MGND
D37
DAP202U-X
REG+3V
Q36
2SJ484WY-X
L36
22u
Q57
2SC4097/QR/-X
TL36
R341
10k
TL37
2/4
REEL_PWR
2/4
REEL_ERR
R335
33k
REG+5VM
R334
1k
R345
10
C321
1
C322
4.7
R337
22k
Q37
DTA114EUA-X
D36
SFPB-72-W
R336
5.6k
R338
33k
C318
0.1
Q58
2SA1577/QR/-X
MGND
MGND
C314
220P
IC32
BA9743AFV-X
R321
10k
(0.5%)
R322
10k
(0.5%)
C323
0.001
R339
56k
R340
82k
C315
0.1
R319
10K
C317
0.1
R320
0
R353
OPEN
MGND
R351
0
R352
OPEN
R333
2.2k
C316
4.7
MGND
MGND

– MDA/DC SCHEMATIC DIAGRAM 4/4 –

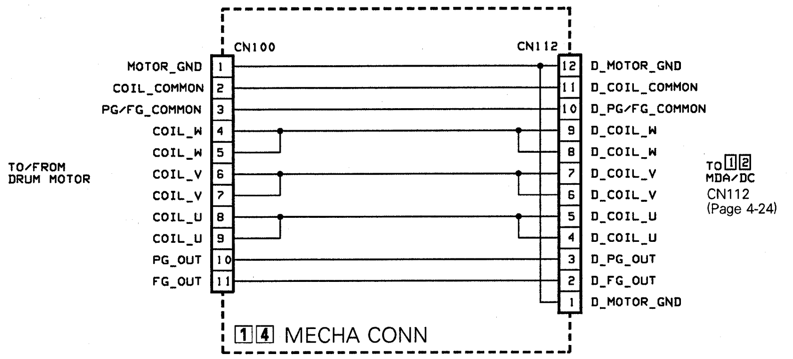


TL41
L42
22u
REG+5VM
C414
10
MGND
L43
22u
C415
10
DGND
+12V
CN108
1 +12V
2 +5V
3 GND
4 +3.15V
5 +3.15V
6 +2.9V
7 +2.5V
8 GND
DGND
TO [1][1]
DV/CPU
CN108
(Page 4-21)
Q41
2SJ484WY-X
NAL24CN-220X
L41
22u
+12V
Q43
2SC4097/QR/-X
R411
1k
R420
10
C409
1
C410
10
C412
10
D41
SFPB-72-W
C413
0.22
R412
1.8k
(0.5%)
R413
1.8k
(0.5%)
R414
1.2k
(0.5%)
DGND
R410
2.2k
Q44
2SA1577/QR/-X
C411
10
Q42
2SJ484WY-X
Q45
2SC4097/QR/-X
L44
22u
C420
0.22
L45
22u
TL42
REG+3V
3.15V
C427
10/10
DGND
R416
1k
C416
1
R421
10
C417
10/10
C419
10/10
R417
5.6k
(0.5%)
R418
2.7k
(0.5%)
R419
33
DGND
D42
SFPB-72-W
Q46
2SA1577/QR/-X
C418
10/10
R406
4.7k
(0.5%)
R407
4.7k
(0.5%)
C405
1
R404
4.7K
(0.5%)
R405
3.3K
(0.5%)
C407
2.2
IC41
BA9743AFV-X
C401
220p
R401
10k
1 CT
2 RT
3 NON1
4 INV1
5 FB1
6 DT1
7 OUT1
8 GND
16 VREF
15 SCP
14 NON2
13 INV2
12 FB2
11 DT2
10 OUT2
9 VCC
R403
0
C404
0.01
R408
47k
(0.5%)
C408
1
R415
2.2k
C402
0.01
R402
0
R409
27k
(0.5%)
C403
4.7
DGND
IC42
MM1572KN-X
REG+2.9V
TL43
C421
10
1 VIN
2 GND
3 CONT
VO 5
NOISE 4
C423
10/10
C422
0.01
DGND
IC43
MM1572FN-X
REG+2.5V
TL44
C424
10/10
1 VIN
2 GND
3 CONT
VO 5
NOISE 4
C426
10/10
C425
0.01
DGND
[1][2] MDA/DC

4.14 MECHA & MECHA CONN SCHEMATIC DIAGRAMS


CN128
2 DEW_SENS.
1 GND
TO
DEW SENSOR
S1
NSW0171-001X
S2
NSW0170-001X
S3
NSW0170-001X
TO 1 1
DV/CPU
CN104
(Page 4-21)
CN104
NC 1
GND 2
TAPE_LED 3
STD_CASS_SW 4
SP_LOCK_SW 5
CASETTE_SW 6
END_SENSOR 7
HOUSING2_SW 8
HOUSING1_SW 9
THERM_SENSOR 10
CA+3V 11
MODE_SENS 12
GND 13
TH1
22k
R1
OPEN
VR1
NVQ0006-B14X
CN126
1 END_SENSOR
2 GND
3 HOUSING1_SW
4 HOUSING2_SW
TO
SENSOR
LD2
OPEN
LD1
LN59
TO 1 2
MDA/DC
CN116
(Page 4-25)
CN116
R_FG_VCC(5V) 1
R_FG_OUT1 2
R_FG_GND 3
R_FG_OUT2 4
R_HE_U+ 5
R_HE_GND 6
R_HE_U- 7
R_HE_V- 8
R_HE_V+ 9
R_HE_W- 10
R_HE_VCC(5V) 11
R_HE_W+ 12
R_COIL_W 13
R_COIL_W 14
R_COIL_U 15
R_COIL_U 16
R_COIL_V 17
R_COIL_V 18
19
20
CN124
18 FG_VCC(5V)
17 FG_OUT1
16 FG_GND
15 FG_OUT2
14 HE_U+
13 HE_GND
12 HE_U-
11 HE_V-
10 HE_V+
9 HE_W-
8 HE_VCC(5V)
7 HE_W+
6 COIL_W
5 COIL_W
4 COIL_U
3 COIL_U
2 COIL_V
1 COIL_V
TO
REEL MOTOR
TO 1 1
DV/CPU
CN106
(Page 4-21)
CN106
DEW_SENS. 1
LED2_1_SW 2
LED2_2_SW 3
MONI_R 4
GND(MONI) 5
MONI_V 6
MONI_L 7
EJECT_SW 8
GND 9
REC_SAFE 10
M.I.C._1 11
M.I.C._2 12
M.I.C._3 13
M.I.C._4 14
TU_REEL_SENS 15
GND 16
SP_REEL_SENS 17
REEL_LED 18
GND 19
START_SENSOR 20
S4
NO ASS'Y
JK1
NO ASS'Y
CN125
10 GND
9 REC_SAFE
8 M.I.C._1
7 M.I.C._2
6 M.I.C._3
5 M.I.C._4
4 TU_REEL_SENS
3 GND
2 SP_REEL_SENS
1 REEL_LED
TO
MECHA
CN127
2 GND
1 START_SENSOR.
TO
START SENSOR
1 3 MECHA

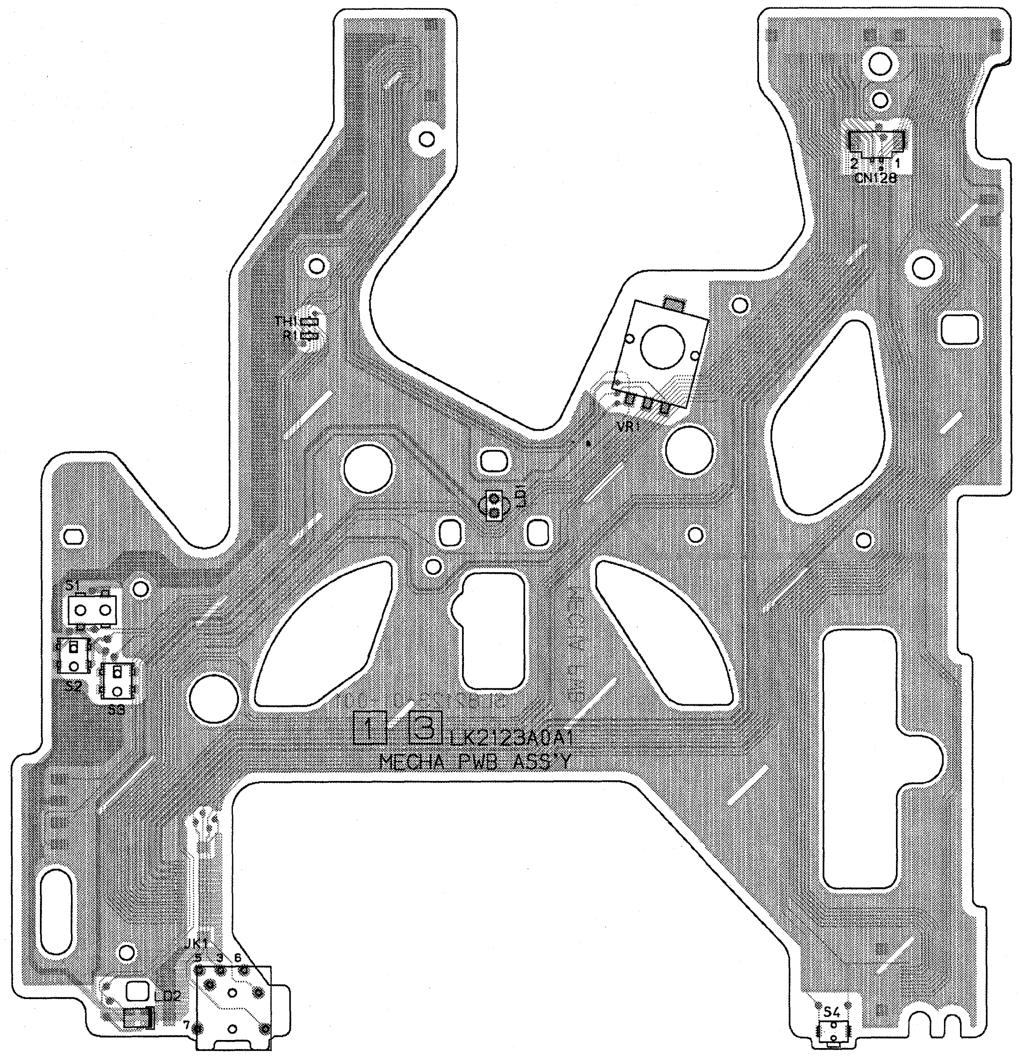
– MECHA CONN –


TO/FROM
DRUM MOTOR
CN100
MOTOR_GND 1
COIL_COMMON 2
PG/FG_COMMON 3
COIL_W 4
COIL_W 5
COIL_V 6
COIL_V 7
COIL_U 8
COIL_U 9
PG_OUT 10
FG_OUT 11
CN112
12 D_MOTOR_GND
11 D_COIL_COMMON
10 D_PG/FG_COMMON
9 D_COIL_W
8 D_COIL_W
7 D_COIL_V
6 D_COIL_V
5 D_COIL_U
4 D_COIL_U
3 D_PG_OUT
2 D_FG_OUT
1 D_MOTOR_GND
TO 1 2
MDA/DC
CN112
(Page 4-24)
1 4 MECHA CONN

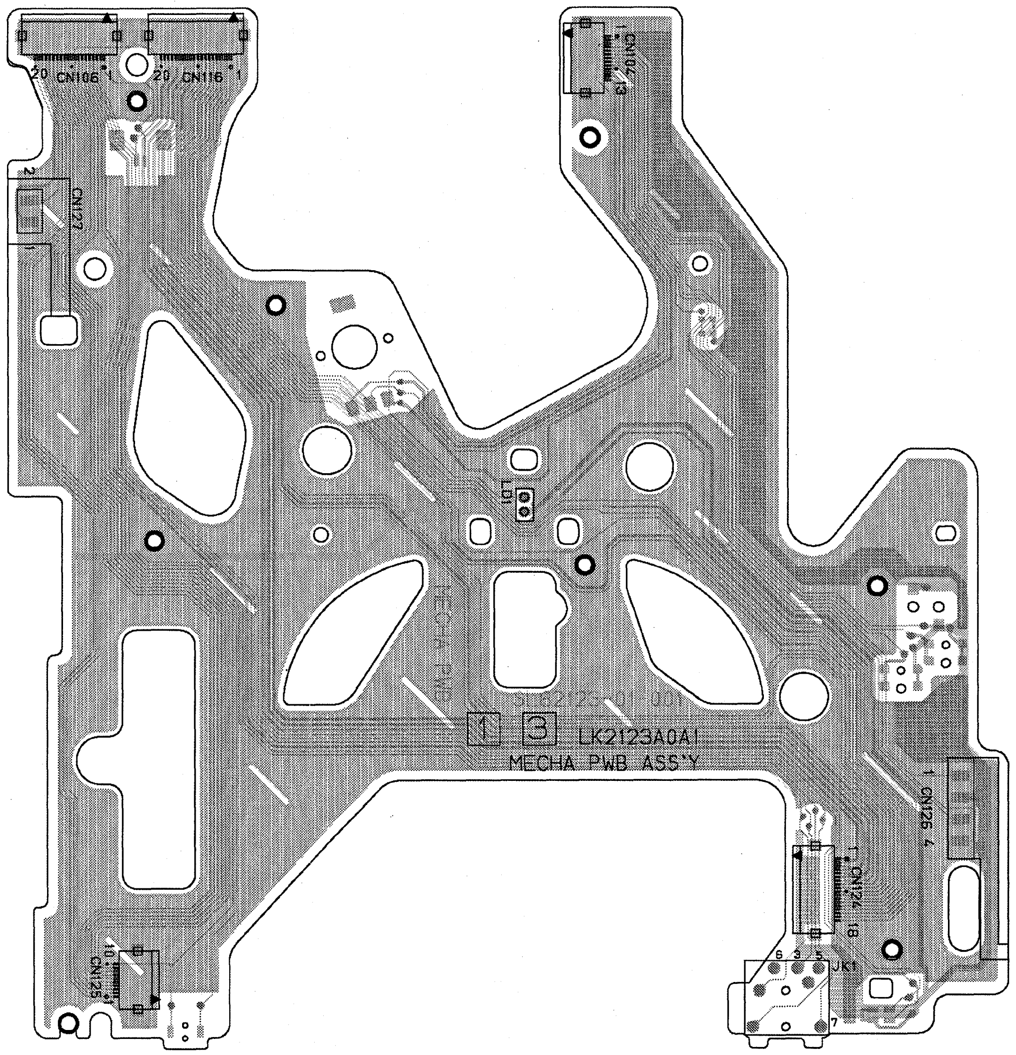
4.15 MECHA & MECHA CONN CIRCUIT BOARDS

– MECHA CIRCUIT BOARD –

– SIDE A –

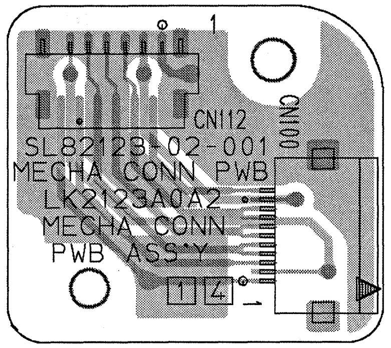

CN128
2
1
TH1
R1
VR1
LD1
S1
S2
S3
JK1
LD2
S4
1
3
LK2123A0A1
MECHA PWB ASS'Y

– SIDE B –

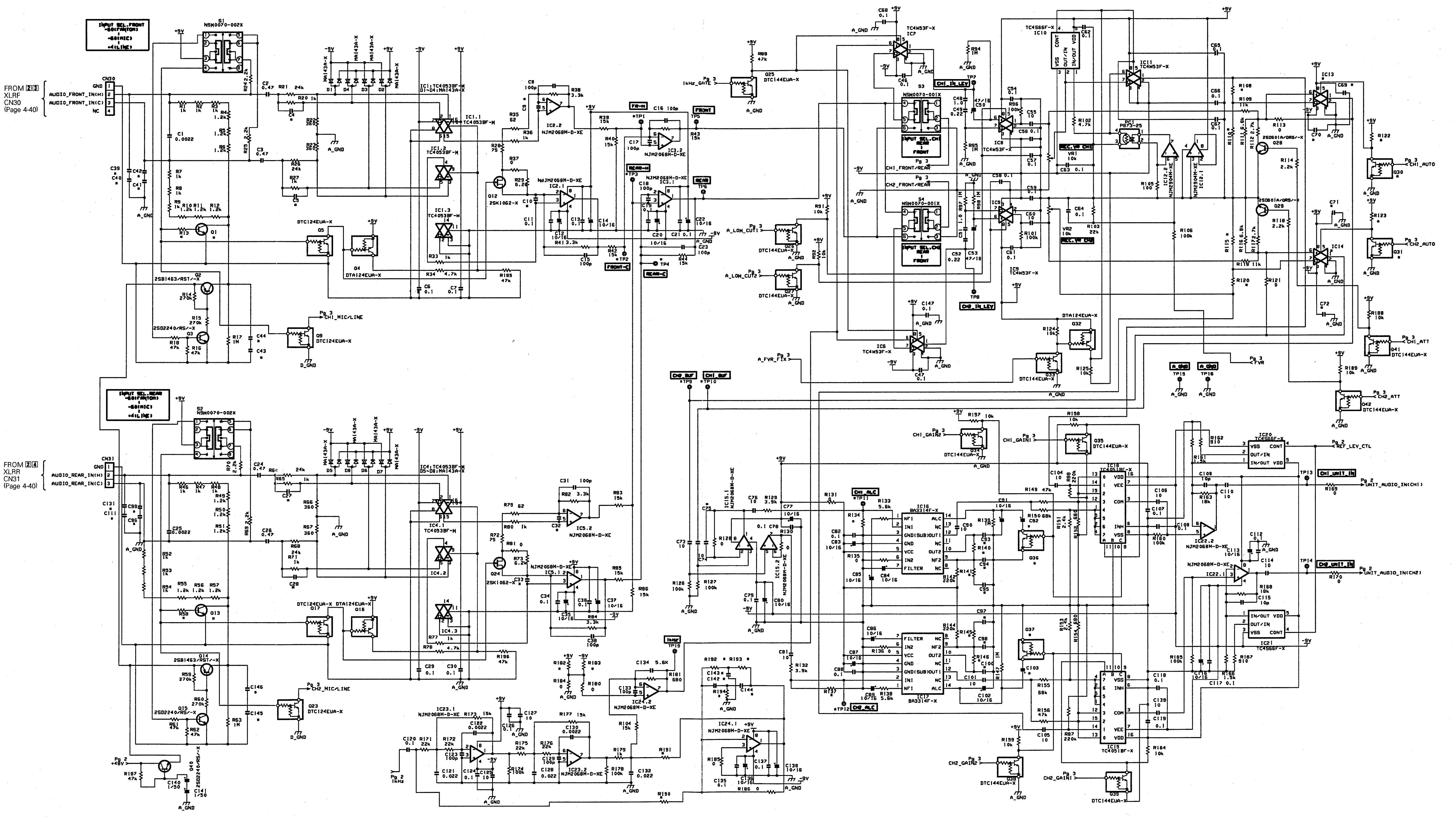

20
CN106
1
20
CN116
1
CN104
CN127
LD1
1
3
LK2123A0A1
MECHA PWB ASS'Y
CN126
CN124
18
CN125
10
JK1

– MECHA CONN CIRCUIT BOARD –

– SIDE A –


1
CN112
CN100
SL82123-02-001
MECHA CONN PWB
LK2123A0A2
MECHA CONN
PWB ASS'Y
1
4
1

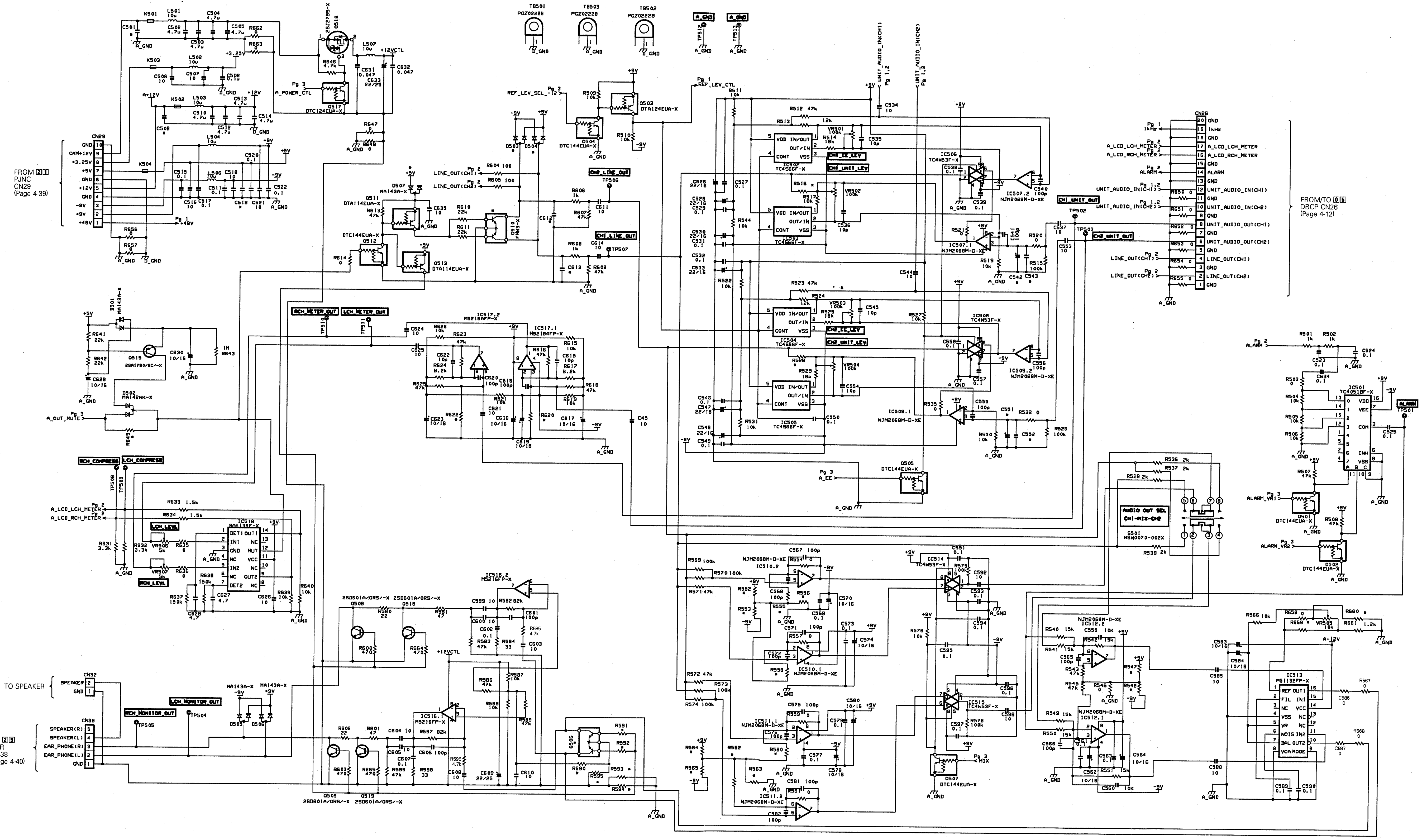
4.16 ALS SCHEMATIC DIAGRAM 1/4



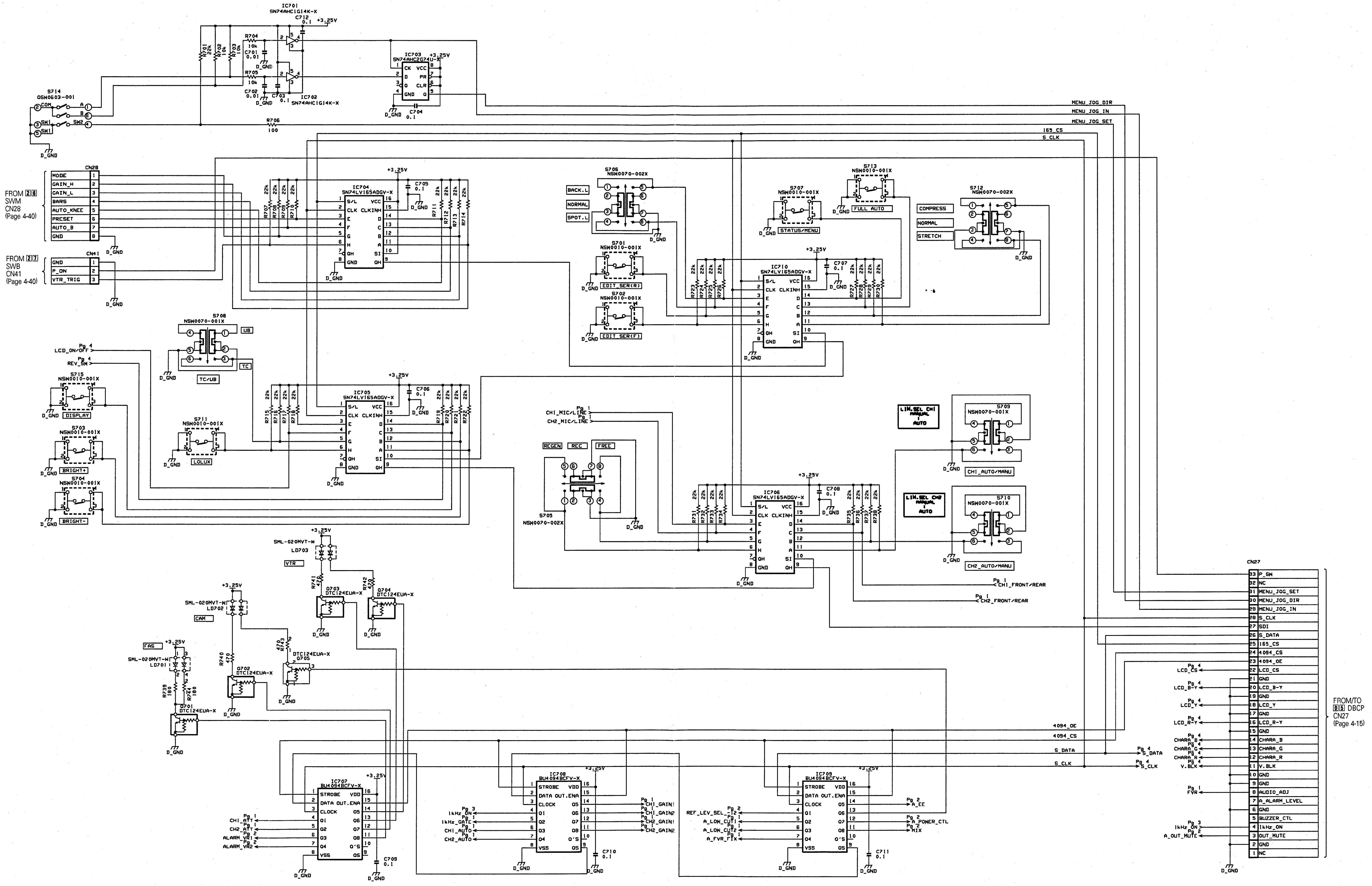
FROM 2 3 XLRF CN30 (Page 4-40)
FROM 2 4 XLRR CN31 (Page 4-40)
CN30
GND
AUDIO_FRONT_IN(H)
AUDIO_FRONT_IN(C)
NC
CN31
AUDIO_REAR_IN(H)
AUDIO_REAR_IN(C)
INPUT SEL.FRONT
INPUT SEL.REAR
S1 NSH0070-002X
S2 NSH0070-002X
S3 NSH0070-001X
S4 NSH0070-001X
IC1.1 TC4053BF-M
IC4.1 TC4053BF-M
IC2.1 NJM2068M-D-XE
IC3.1 NJM2068M-D-XE
IC5.1 NJM2068M-D-XE
IC7 TC4W53F-X
IC8 TC4W53F-X
IC9 TC4W53F-X
IC6 TC4W53F-X
IC10 TC4S66F-X
IC11 TC4W53F-X
IC13
IC14
IC16 BA3314F-X
IC17 BA3314F-X
IC18 TC4051BF-X
IC19 TC4051BF-X
IC20 TC4S66F-X
IC21 TC4S66F-X
IC22.1
IC22.2
IC23.1
IC23.2
IC24.1
PC1 PS873-25
Q1
Q2 2SB1463/RST/-X
Q3 2SD2240/RS/-X
Q4 DTA124EUA-X
Q5 DTC124EUA-X
Q9 DTC124EUA-X
Q12 2SK1062-X
Q24 2SK1062-X
Q25 DTC144EUA-X
Q26 DTC144EUA-X
Q27 DTC144EUA-X
Q28 2SD601A/QRS/-X
Q29 2SD601A/QRS/-X
Q30
Q31
Q32 DTA124EUA-X
Q33 DTC144EUA-X
Q41 DTC144EUA-X
Q42 DTC144EUA-X
Q23 DTC124EUA-X
Q40 2SD2240/RS/-X
Pg 3 CH1_MIC/LINE
Pg 3 CH2_MIC/LINE
Pg 3 1kHz_GATE
Pg 3 A_LOW_CUT1
Pg 3 A_LOW_CUT2
Pg 3 A_FVR_FIX
Pg 3 CH1_FRONT/REAR
Pg 3 CH2_FRONT/REAR
Pg 3 CH1_AUTO
Pg 3 CH2_AUTO
Pg 3 CH1_ATT
Pg 3 CH2_ATT
Pg 3 FVR
Pg 3 CH1_GAIN2
Pg 3 CH1_GAIN1
Pg 3 CH2_GAIN2
Pg 3 CH2_GAIN1
Pg 2 REF_LEV_CTL
Pg 2 UNIT_AUDIO_IN(CH1)
Pg 2 UNIT_AUDIO_IN(CH2)
Pg 2 +48V
Pg 2 1kHz
FR-M
FRONT
FRONT-C
REAR-M
REAR
REAR-C
CH1_IN_LEV
CH2_IN_LEV
CH1_BUF
CH2_BUF
CH1_ALC
CH2_ALC
CH1_unit_in
CH2_unit_in
REC.VR CH1
REC.VR CH2
1kHz
A_GND
D_GND
+5V
-5V

0 6 ALS

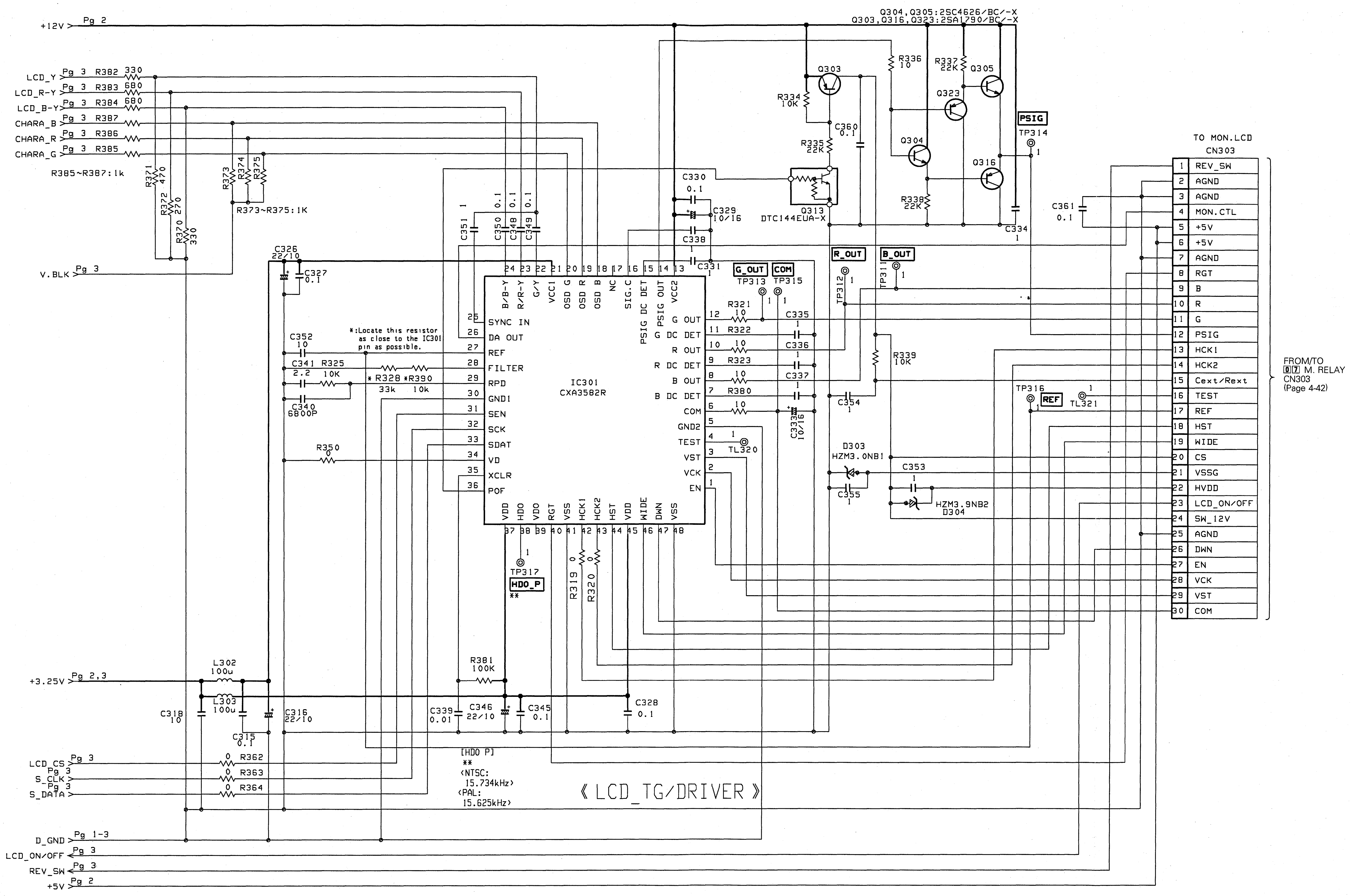
— ALS SCHEMATIC DIAGRAM 2/4 —


FROM 2-1 PJNC CN29 (Page 4-39)
CN29
GND
CAM+12V
+3.25V
+5V
GND
+12V
GND
-9V
+9V
+48V
FROM/TO 0-5 DBCP CN26 (Page 4-12)
CN26
1kHz
A_LCD_LCH_METER
A_LCD_RCH_METER
ALARM
UNIT_AUDIO_IN(CH1)
UNIT_AUDIO_IN(CH2)
UNIT_AUDIO_OUT(CH1)
UNIT_AUDIO_OUT(CH2)
LINE_OUT(CH1)
LINE_OUT(CH2)
TO SPEAKER
CN32
SPEAKER
GND
TO 2-9 EAR CN38 (Page 4-40)
CN38
SPEAKER(R)
SPEAKER(L)
EAR_PHONE(R)
EAR_PHONE(L)
GND
TB501 PGZ02228
TB503 PGZ02228
TB502 PGZ02228
A_GND
D_GND
A_POWER_CTL
REF_LEV_SEL
REF_LEV_CTL
A_OUT_MUTE
A_EE
A_MIX
ALARM_VR1
ALARM_VR2
CH1_EE_LEV
CH1_UNIT_LEV
CH2_EE_LEV
CH2_UNIT_LEV
CH1_LINE_OUT
CH2_LINE_OUT
CH1_UNIT_OUT
CH2_UNIT_OUT
RCH_METER_OUT
LCH_METER_OUT
RCH_COMPRESS
LCH_COMPRESS
LCH_LEVL
RCH_LEVL
RCH_MONITOR_OUT
LCH_MONITOR_OUT
AUDIO OUT SEL
CH1-MIX-CH2
S501 NSW0070-002X
ALARM
IC501 TC4051BF-X
IC502 TC4S66F-X
IC503 TC4S66F-X
IC504 TC4S66F-X
IC505 TC4S66F-X
IC506 TC4W53F-X
IC507.1 NJM2068M-D-XE
IC507.2 NJM2068M-D-XE
IC508 TC4W53F-X
IC509.1 NJM2068M-D-XE
IC509.2 NJM2068M-D-XE
IC510.1 NJM2068M-D-XE
IC510.2 NJM2068M-D-XE
IC511.1 NJM2068M-D-XE
IC511.2 NJM2068M-D-XE
IC512.1 NJM2068M-D-XE
IC512.2 NJM2068M-D-XE
IC513 M51132FP-X
IC514 TC4W53F-X
IC515 TC4W53F-X
IC516.1 M5216FP-X
IC516.2 M5216FP-X
IC517.1 M5218AFP-X
IC517.2 M5218AFP-X
IC518 BA6138F-X
Q501 DTC144EUA-X
Q502 DTC144EUA-X
Q503 DTA124EUA-X
Q504 DTC144EUA-X
Q505 DTC144EUA-X
Q507 DTC144EUA-X
Q508 2SD601A/QRS/-X
Q509 2SD601A/QRS/-X
Q510 FMW3-X
Q511 DTA114EUA-X
Q512 DTC144EUA-X
Q513 DTA114EUA-X
Q515 2SA1786/BC/-X
Q516 2SJ279S-X
Q517 DTC124EUA-X
Q518 2SD601A/QRS/-X
Q519 2SD601A/QRS/-X
D501 MA143A-X
D502 MA142WK-X
D503
D504
D505 MA143A-X
D506 MA143A-X
D507 MA143A-X
TP501
TP502
TP503
TP504
TP505
TP506
TP507
TP508
TP509
TP510
TP511
TP512
TP513
+12VCTL
+9V
-9V
+5V
+12V
+3.25V
A+12V

— ALS SCHEMATIC DIAGRAM 3/4 —


IC701
SN74AHC1G14K-X
IC702
SN74AHC1G14K-X
IC703
SN74AHC2G74U-X
S714
OSN0603-001
R706
100
CN28
MODE
GAIN_H
GAIN_L
BARS
AUTO_KNEE
PRESET
AUTO_B
GND
FROM 26
SWM
CN28
(Page 4-40)
CN41
GND
P_ON
VTR_TRIG
FROM 27
SWB
CN41
(Page 4-40)
IC704
SN74LV165ADGV-X
IC705
SN74LV165ADGV-X
IC706
SN74LV165ADGV-X
IC710
SN74LV165ADGV-X
S706
NSW0070-002X
BACK.L
NORMAL
SPOT.L
S701
NSW0010-001X
EDIT_SER(R)
S702
NSW0010-001X
EDIT_SER(F)
S707
NSW0010-001X
STATUS/MENU
S713
NSW0010-001X
FULL AUTO
S712
NSW0070-002X
COMPRESS
NORMAL
STRETCH
S708
NSW0070-001X
UB
TC
TC/UB
LCD_ON/OFF
REV_SW
S715
NSW0010-001X
DISPLAY
S703
NSW0010-001X
BRIGHT+
S704
NSW0010-001X
BRIGHT-
S711
NSW0010-001X
LOLUX
CH1_MIC/LINE
CH2_MIC/LINE
REGEN
REC
FREE
S705
NSW0070-002X
S709
NSW0070-001X
LIN.SEL CH1
MANUAL
AUTO
CH1_AUTO/MANU
S710
NSW0070-001X
LIN.SEL CH2
MANUAL
AUTO
CH2_AUTO/MANU
CH1_FRONT/REAR
CH2_FRONT/REAR
MENU_JOG_DIR
MENU_JOG_IN
MENU_JOG_SET
165_CS
S_CLK
4094_OE
4094_CS
S_DATA
S_CLK
SML-020MVT-W
LD703
VTR
Q703
DTC124EUA-X
Q704
DTC124EUA-X
SML-020MVT-W
LD702
CAM
Q705
DTC124EUA-X
Q702
DTC124EUA-X
FAS
SML-020MVT-W
LD701
Q701
DTC124EUA-X
IC707
BU4094BCFV-X
CH1_ATT
CH2_ATT
ALARM_VR1
ALARM_VR2
IC708
BU4094BCFV-X
1kHz_ON
1kHz_GATE
CH1_AUTO
CH2_AUTO
CH1_GAIN1
CH1_GAIN2
CH2_GAIN1
CH2_GAIN2
IC709
BU4094BCFV-X
REF_LEV_SEL_1/2
A_LOW_CUT1
A_LOW_CUT2
A_FVR_FIX
A_EE
A_POWER_CTL
MIX
CN27
P_SW
NC
MENU_JOG_SET
MENU_JOG_DIR
MENU_JOG_IN
S_CLK
SDI
S_DATA
165_CS
4094_CS
4094_OE
LCD_CS
GND
LCD_B-Y
GND
LCD_Y
GND
LCD_R-Y
GND
CHARA_B
CHARA_G
CHARA_R
V.BLK
GND
GND
AUDIO_ADJ
A_ALARM_LEVEL
GND
BUZZER_CTL
1kHz_ON
OUT_MUTE
GND
NC
LCD_CS
LCD_B-Y
LCD_Y
LCD_R-Y
CHARA_B
CHARA_G
CHARA_R
V.BLK
FVR
1kHz_ON
A_OUT_MUTE
FROM/TO
05 DBCP
CN27
(Page 4-15)
D_GND
+3.25V

— ALS SCHEMATIC DIAGRAM 4/4 —


+12V Pg 2
LCD_Y Pg 3 R382 330
LCD_R-Y Pg 3 R383 680
LCD_B-Y Pg 3 R384 680
CHARA_B Pg 3 R387
CHARA_R Pg 3 R386
CHARA_G Pg 3 R385
R385~R387:1k
R371 470
R372 270
R370 330
R373 R374 R375
R373~R375:1K
V.BLK Pg 3
C326 22/10
C327 0.1
C351 1
C350 0.1
C348 0.1
C349 0.1
C330 0.1
C329 10/16
C338 1
C331 1
Q304,Q305:2SC4626/BC/-X
Q303,Q316,Q323:2SA1790/BC/-X
Q303
R334 10K
R335 22K
C360 0.1
Q313 DTC144EUA-X
R336 10
R337 22K
Q305
Q323
Q304
Q316
R338 22K
C334 1
PSIG
TP314
C361 0.1
TO MON.LCD
CN303
1 REV_SW
2 AGND
3 AGND
4 MON.CTL
5 +5V
6 +5V
7 AGND
8 RGT
9 B
10 R
11 G
12 PSIG
13 HCK1
14 HCK2
15 Cext/Rext
16 TEST
17 REF
18 HST
19 WIDE
20 CS
21 VSSG
22 HVDD
23 LCD_ON/OFF
24 SW_12V
25 AGND
26 DWN
27 EN
28 VCK
29 VST
30 COM
R_OUT
B_OUT
TP312
TP311
G_OUT
COM
TP313
TP315
R321 10
C335 1
R322
C336 1
R323
C337 1
R380
C333 10/16
TL320
R339 10K
C354 1
TP316
REF
TL321
D303 HZM3.0NB1
C353 1
C355 1
HZM3.9NB2 D304
IC301 CXA3582R
24 B/B-Y
23 R/R-Y
22 G/Y
21 VCC1
20 OSD G
19 OSD R
18 OSD B
17 NC
16 SIG.C
15 PSIG DC DET
14 PSIG OUT
13 VCC2
25 SYNC IN
26 DA OUT
27 REF
28 FILTER
29 RPD
30 GND1
31 SEN
32 SCK
33 SDAT
34 VD
35 XCLR
36 POF
12 G OUT
11 G DC DET
10 R OUT
9 R DC DET
8 B OUT
7 B DC DET
6 COM
5 GND2
4 TEST
3 VST
2 VCK
1 EN
37 VDD
38 HDO
39 VDO
40 RGT
41 VSS
42 HCK1
43 HCK2
44 HST
45 VDD
46 WIDE
47 DWN
48 VSS
C352 10
C341 2.2
R325 10K
*R328 33k
*R390 10k
C340 6800P
R350 0
TP317
HDO_P
**
R319 0
R320 0
R381 100K
+3.25V Pg 2,3
L302 100u
L303 100u
C318 10
C315 0.1
C316 22/10
C339 0.01
C346 22/10
C345 0.1
C328 0.1
LCD_CS Pg 3 R362 0
S_CLK Pg 3 R363 0
S_DATA Pg 3 R364 0
D_GND Pg 1-3
LCD_ON/OFF Pg 3
REV_SW Pg 3
+5V Pg 2
《 LCD_TG/DRIVER 》

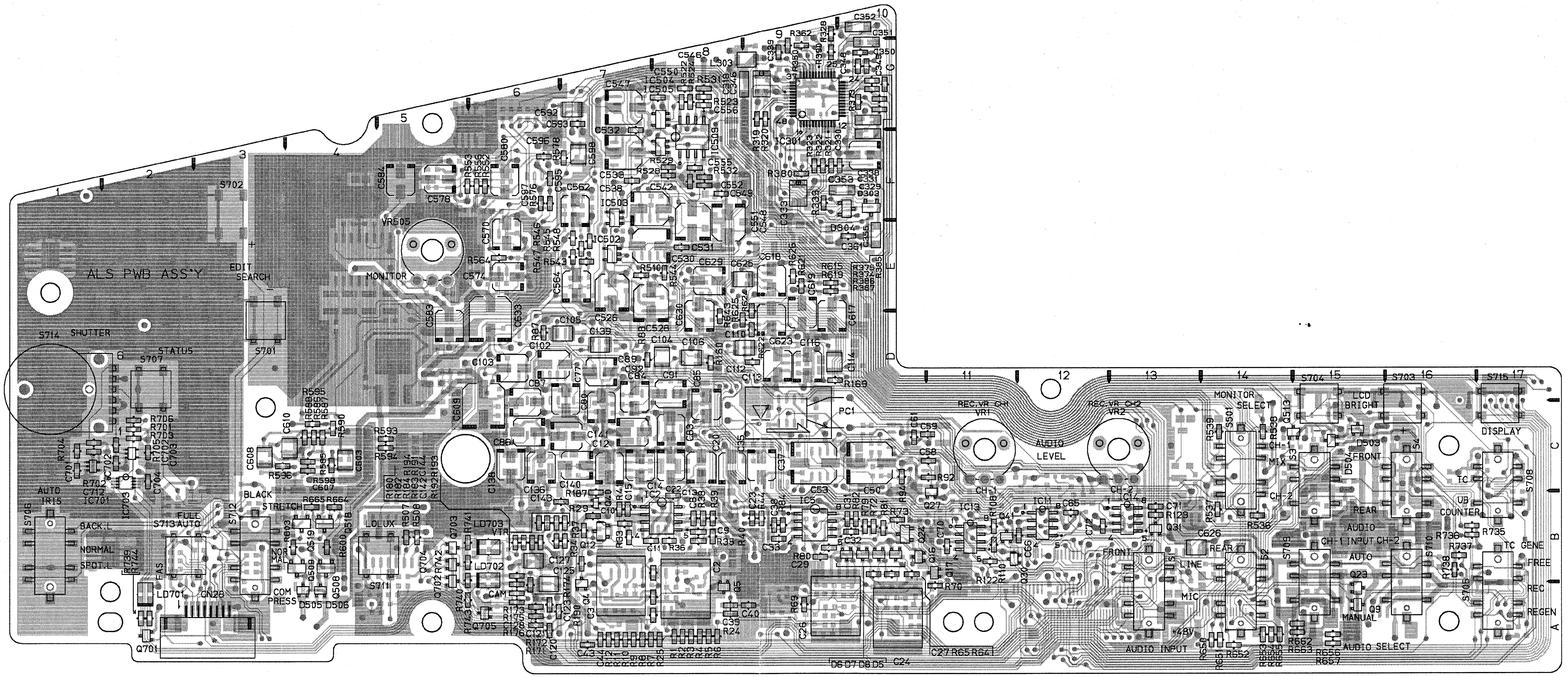
*:Locate this resistor as close to the IC301 pin as possible.

[HDO P]
**
<NTSC:
15.734kHz>
<PAL:
15.625kHz>

FROM/TO
07 M. RELAY
CN303
(Page 4-42)

4.17 ALS CIRCUIT BOARD

– SIDE A –



● **ADDRESS TABLE OF BOARD PARTS**

Each address may have an address error by one interval.

A-1C
Side —┘│└— Y axis
X axis

IC1	B-8B
IC2	A-8B
IC3	B-9B
IC4	B-10B
IC5	A-10B
IC6	B-9C
IC7	B-10C
IC8	B-11B
IC9	B-11C
IC10	B-12B
IC11	A-12B
IC12	B-9C
IC13	A-12B
IC14	A-13B
IC15	B-7B
IC16	B-8C
IC17	B-7C
IC18	B-8D
IC19	B-7D
IC20	B-9D
IC21	B-9D
IC22	B-9D
IC23	B-6A
IC24	B-7B
IC301	A-10F
IC501	B-5B
IC502	A-7E
IC503	A-7E
IC504	A-8F
IC505	A-8F
IC506	B-8F
IC507	B-8E
IC508	B-8F
IC509	A-8F
IC510	B-6E
IC511	B-6E
IC512	B-7E
IC513	B-5E
IC514	B-7F
IC515	B-7E
IC516	B-4C
IC517	B-9D
IC518	B-14B
IC701	A-1C
IC702	A-2C
IC703	A-2B
IC704	B-3B
IC705	B-17B
IC706	B-18A
IC707	B-12A
IC708	B-13A
IC709	B-13A
IC710	B-3B
Q1	B-9A
Q2	B-7A
Q3	B-7A
Q4	A-7A
Q5	A-9A
Q9	A-16A
Q12	A-7B
Q13	B-11A
Q14	B-10A
Q15	B-9A
Q16	A-11B
Q17	A-11A
Q23	A-16A
Q24	A-11B
Q25	B-11B
Q26	B-11B
Q27	A-11B
Q28	B-12B
Q29	B-13B
Q30	A-12B
Q31	A-14B
Q32	B-13B
Q33	B-13B
Q34	B-7D
Q35	B-7D
Q36	B-7C
Q37	B-6C
Q38	B-6C
Q39	B-6D
Q40	A-7B
Q41	A-12B
Q42	B-13B
Q303	B-9F
Q304	B-10F
Q305	B-10F
Q313	B-9F
Q316	B-10F
Q323	B-10F
Q501	B-6B
Q502	B-5B
Q503	B-8D
Q504	B-8D
Q505	B-7D
Q506	B-4C
Q507	B-7E
Q508	A-4B
Q509	A-4B
Q510	B-15C
Q511	B-15B
Q512	B-15B
Q513	A-15C
Q515	B-8D
Q516	B-5C
Q517	B-5D
Q518	A-4B
Q519	A-4B
Q701	A-2A
Q702	A-6A
Q703	A-6B
Q704	A-6B
Q705	A-6A
Q907	A-12F
Q908	A-12F
Q909	A-12E
Q910	A-12E
Q911	A-13E
Q912	A-13F
D1	B-8A
D2	B-8A
D3	B-7A
D4	B-8A
D5	A-11B
D6	A-10B
D7	A-10B
D8	A-10B
D303	A-10E
D304	A-10E
D501	B-8D
D502	B-9D
D503	A-16C
D504	A-16C
D505	A-4A
D506	A-4A
D507	B-15C
R1	A-8A
R2	A-8A
R3	A-8A
R4	A-8A
R5	A-9A
R6	A-9A
R7	A-8A
R8	A-8A
R9	A-8A
R10	A-8A
R11	A-7A
R12	A-7A
R13	B-9A
R14	B-8A
R15	B-7A
R16	B-7A
R17	B-7A
R18	B-7A
R20	B-8B
R21	B-8A
R22	B-8A
R23	A-8A
R24	A-9A
R25	A-8A
R26	A-8A
R27	B-8A
R28	B-7B
R29	A-7B
R33	A-8B
R34	A-7B
R35	A-8B
R36	A-8B
R37	A-7B
R38	A-8B
R39	A-9B
R40	A-9B
R41	A-8B
R42	B-8B
R43	B-8B
R44	A-9B
R46	B-11A
R47	B-11A
R48	B-11A
R49	B-11A
R50	B-11A
R51	B-11A
R52	B-10A
R53	B-10A
R54	B-10A
R55	B-10A
R56	B-10A
R57	B-10A
R58	B-11A
R59	B-9A
R60	B-9A
R61	B-9A
R62	B-9A
R63	B-10A
R64	A-11A
R65	A-11A
R66	B-11A
R67	B-11A
R68	B-10A
R69	A-10A
R70	A-11A
R71	B-10A
R72	A-10B
R73	A-11B
R77	B-10B
R78	B-11B
R79	A-10B
R80	A-10B
R81	A-11B
R82	A-10B
R83	B-10B
R84	A-9B
R85	B-9B
R86	B-10B
R87	A-7D
R88	A-8D
R89	B-11B
R91	B-11B
R92	A-11B
R94	A-11B
R95	B-11B
R96	B-11C
R97	B-10C
R98	B-11C
R101	B-11C
R102	B-12B
R103	B-9C
R104	B-6B
R105	B-9C
R106	B-10C
R108	A-12B
R109	B-11B
R110	A-12B
R111	B-11B
R112	B-12B
R113	B-11B
R114	B-12B
R115	B-13B
R116	B-13B
R117	B-13B
R118	B-13B
R119	B-13B
R120	B-13B
R121	B-13B
R122	A-12B
R123	A-14B
R124	B-13B
R125	B-12B
R126	B-7B
R127	B-8B
R128	B-8C
R129	B-8C
R130	B-7B
R131	B-7C
R132	B-7B
R133	B-8C
R134	B-8C
R135	B-8C
R136	B-6C
R137	B-7C
R138	B-7C
R139	B-8C
R140	B-8C
R141	B-7C
R142	B-8C
R144	B-6C
R145	B-6C
R146	B-6C
R147	B-7C
R149	B-8D
R150	B-8C
R151	B-8C
R152	B-8D
R153	B-7C
R154	B-7D
R155	B-7C
R156	B-7D
R157	B-7D
R158	B-7D
R159	B-6D
R160	A-9D
R161	B-9C
R162	B-9D
R163	B-9D
R164	B-6D
R165	B-10C
R166	B-10C
R167	B-10D
R168	B-10D
R169	A-10C
R170	B-10C
R171	A-7A
R172	A-7A
R173	A-6A
R174	A-6A
R175	A-6A
R176	A-6A
R177	B-6A
R178	B-6A
R179	B-6B
R180	A-6B
R181	B-6B
R182	A-6B
R183	A-7B
R184	A-7B
R185	B-7B
R186	B-7B
R187	A-7B
R188	B-12B
R189	B-13B
R190	A-7A
R191	A-7B
R192	A-7B
R193	A-7B
R194	A-7B
R195	B-7B
R196	B-11A
R319	A-9F
R320	A-9F
R321	A-10E
R322	A-10E
R323	A-10E
R325	B-10G
R328	A-10G
R334	B-9F
R335	B-9F
R336	B-10F
R337	B-10F
R338	B-10F
R339	A-10E
R350	A-9G
R362	A-10G
R363	B-10G
R364	B-10G
R370	B-10G
R371	B-10G
R372	B-10G
R373	A-10F
R374	A-10F
R375	A-10F
R380	A-10E
R381	B-9F
R382	B-10F
R383	B-10F
R384	B-10G
R385	A-11F
R386	A-11F
R387	A-11F
R390	A-10G
R501	B-5A
R502	B-5A
R503	B-5A
R504	B-5A
R505	B-5A
R506	B-5A
R507	A-5B
R508	A-5B
R509	B-8D
R510	A-8D
R511	B-8D
R512	B-8D
R513	B-8D
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R520	B-8E
R521	B-8E
R522	A-8F
R523	A-8F
R524	A-8F
R525	B-8F
R526	B-9E
R527	B-7D
R528	A-8E
R529	A-8E
R530	A-8E
R531	A-8F
R532	A-8E
R535	B-8F
R536	A-15B
R537	A-14B
R538	A-15C
R539	A-14C
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R543	A-7E
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R547	A-7E
R548	A-7E
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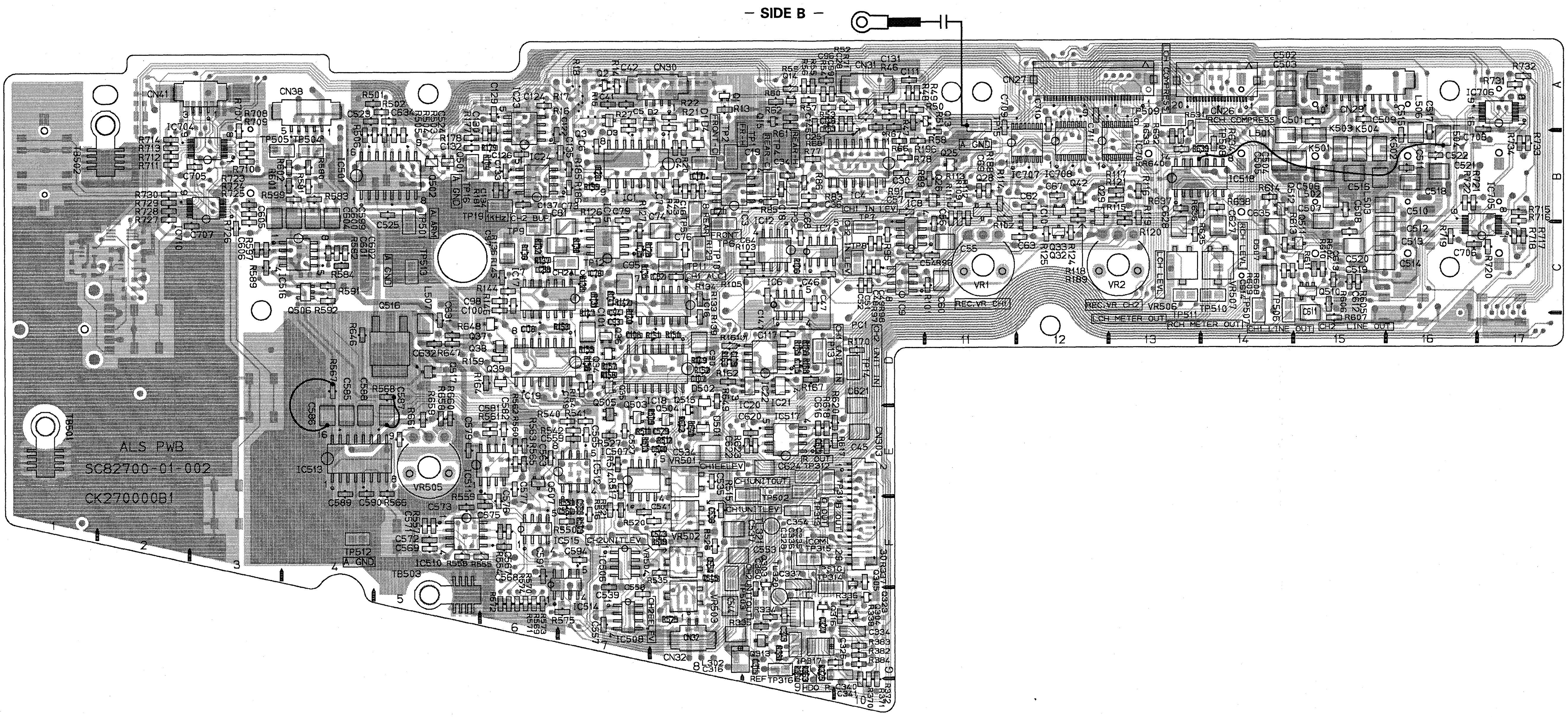
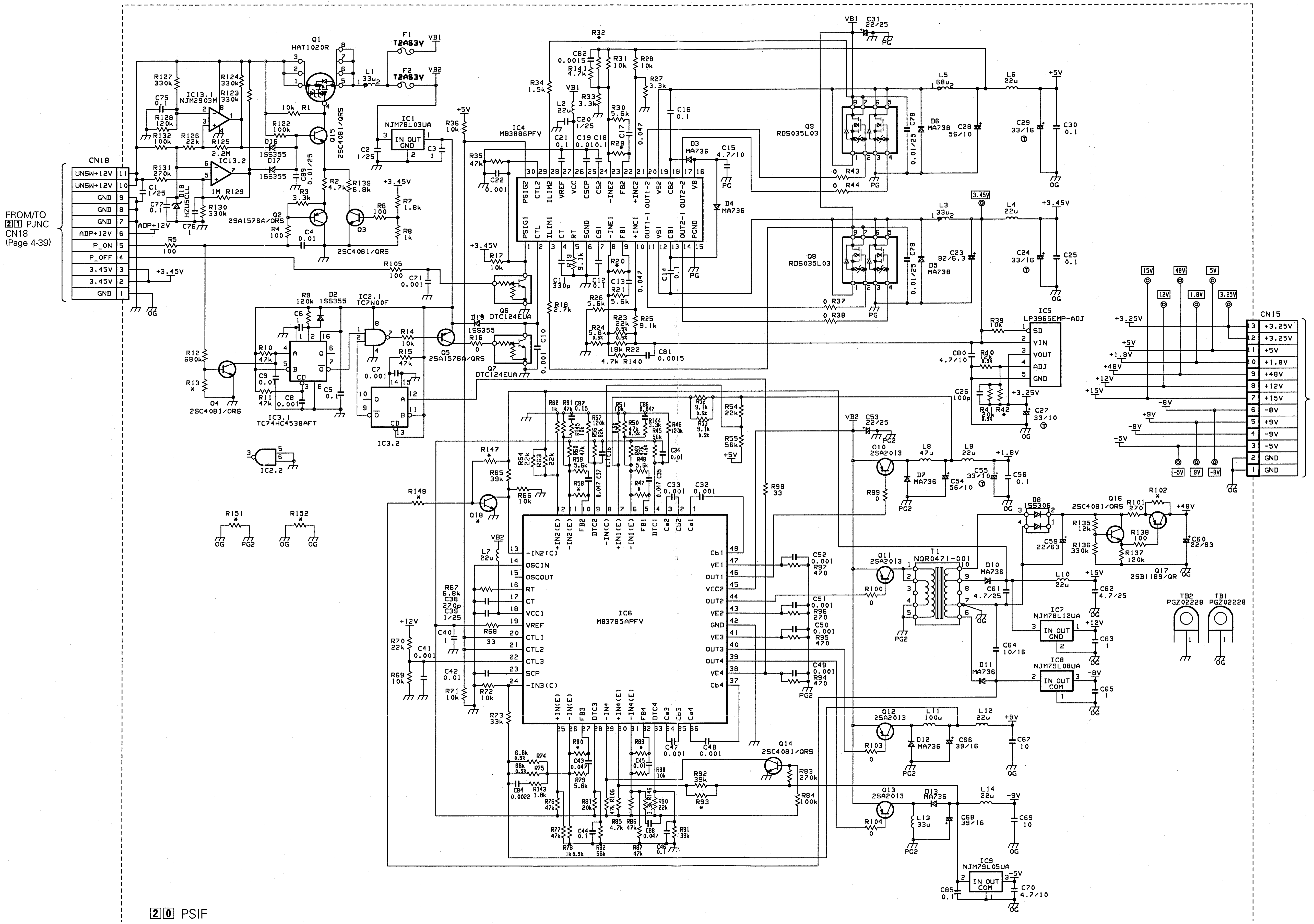
R558	B-6E
R559	B-6E
R560	B-6E
R561	B-6D
R562	B-6D
R563	B-6D
R564	A-6E
R565	B-6E
R566	B-5E
R567	B-4D
R568	B-5D
R569	B-7F
R570	B-6F
R571	B-6F
R572	B-6F
R573	B-7F
R574	B-6F
R575	B-7F
R576	A-7E
R578	A-7F
R580	B-4B
R581	B-4B
R582	B-4C
R583	B-4B
R584	B-4C
R585	A-4C
R586	A-4C
R587	A-4C
R588	A-4C
R589	B-3C
R590	A-4C
R591	B-4C
R592	B-4C
R593	A-5C
R594	A-5C
R595	A-4C
R596	A-4C
R597	B-3B
R598	A-4C
R599	B-4B
R600	A-4B
R601	B-4B
R602	B-4B
R603	A-4B
R604	B-16C
R605	B-16C
R606	B-16C
R607	B-16C
R608	B-15C
R609	B-15C
R610	B-15C
R611	B-15C
R613	B-15B
R614	B-15B
R615	A-10D
R616	B-10D
R617	B-10D
R618	B-10D
R619	A-10D
R620	B-10D
R621	A-10D
R622	A-9D
R623	B-9D
R624	A-9D
R625	A-9D
R626	A-10D
R631	B-14A
R632	B-14A
R633	B-14A
R634	B-14B
R635	B-14B
R636	B-14B
R637	B-14B
R638	B-14B
R639	B-14B
R640	B-14B
R641	B-8D
R642	B-8D
R643	A-9D
R646	B-5C
R647	B-6C
R648	B-6C
R649	B-9D
R650	A-14A
R651	A-14A
R652	A-15A
R653	A-15A
R654	A-15A
R655	A-15A
R656	A-16A
R657	A-16A
R658	B-5D
R659	B-5D
R660	B-6D
R661	B-5D
R662	A-15A
R663	A-15A
R664	A-4B
R665	A-4B
R701	A-2C
R702	A-1C
R703	A-2C
R704	A-1C
R705	A-2C
R706	A-2C
R707	B-3A
R708	B-3A
R709	B-3B
R710	B-3B
R711	B-2B
R712	B-2B
R713	B-2B
R714	B-2A
R715	B-18B
R716	B-18B

– SIDE B –



R717	B-18B	R941	A-12F	C9	A-8B	C38	A-9B	C67	B-13B	C96	B-10A	C125	A-7A	C329	A-10F	C506	B-16B	C535	B-9E	C564	A-7D	C593	A-7F	C622	B-9D	C961	A-13E	TP15	B-12A	CN30	B-8A	S713	A-3B	TL320	B-9F
R718	B-18B	R942	A-12F	C10	A-8B	C39	A-9A	C68	B-10B	C97	B-6C	C126	B-6B	C330	A-10E	C507	B-16B	C536	B-9E	C565	B-7D	C594	B-7F	C623	A-9D	C962	A-13E	TP16	B-6B	CN31	B-10A	S714	A-1C	TL321	B-9E
R719	B-17B	R943	A-12E	C11	A-8B	C40	A-9A	C69	B-12B	C98	B-6C	C127	A-7B	C331	A-10F	C508	B-16B	C537	B-9E	C566	B-7E	C595	A-7E	C624	B-9E	C963	A-13F	TP19	B-6B	CN32	B-8F	S715	A-18C		
R720	B-17C	R944	A-12E	C12	A-7C	C41	B-7A	C70	A-11B	C99	B-10A	C128	A-6A	C333	A-10E	C509	B-16A	C538	A-8E	C567	B-6E	C596	A-7F	C625	A-9D	C964	A-13E	TP311	B-10E	CN38	B-4A	S911	B-16D		
R721	B-17B	R945	A-12F	C13	A-8B	C42	B-8A	C71	A-14B	C100	B-6C	C129	B-6A	C334	B-10F	C510	B-16B	C539	B-7F	C568	B-6E	C597	A-7E	C626	A-14B	C965	A-13E	TP312	B-10E	CN41	B-3A				
R722	B-17B	R946	A-12E	C14	A-8C	C43	A-7A	C72	A-13B	C101	B-7C	C130	B-6A	C335	B-10F	C511	B-17B	C540	B-8D	C569	B-5E	C598	A-7F	C627	B-14B	C966	A-14E	TP313	B-10E	CN303	A-18E	K501	B-15A		
R723	B-3B	R947	A-13F	C15	A-8B	C44	A-7A	C73	B-7B	C102	A-7D	C131	B-11A	C336	B-10F	C512	B-16B	C541	B-8E	C570	A-6E	C599	B-4B	C628	B-14B	C967	A-14D	TP314	B-10F	CN303	B-10E	K502	B-16B		
R724	B-3B	R948	A-13E	C16	B-8B	C45	B-10D	C74	B-8B	C103	A-6C	C132	B-6B	C337	B-10F	C513	B-16B	C542	A-8E	C571	B-5E	C600	B-4B	C629	A-9D	C968	A-14E	TP315	B-10F	CN401	A-4G	K503	B-16B		
R725	B-3B	R949	A-13E	C17	B-8B	C46	B-10C	C75	B-8C	C104	A-8D	C133	B-6B	C338	A-10F	C514	B-16C	C543	B-8E	C572	B-5E	C601	B-4C	C630	A-8D			TP316	B-9G	CN902	A-12D	K504	B-16B		
R726	B-3B	R950	A-13E	C18	B-9B	C47	B-10C	C76	B-8C	C105	A-7D	C134	B-6B	C339	A-9G	C515	B-16A	C544	B-9F	C573	B-6E	C602	B-4C	C631	B-5C	LD701	A-2A	TP317	B-10F	CN911	A-17E				
R727	B-2B			C19	B-9B	C48	B-10B	C77	A-7C	C106	A-8D	C135	B-7B	C340	B-10G	C516	B-16B	C545	B-9F	C574	A-6D	C603	A-4C	C632	B-5C	LD702	A-6A	TP501	B-5B	CN912	A-12E	TB501	B-1D		
R728	B-2B	VR1	A-12C	C20	A-8C	C49	B-11B	C78	B-7C	C107	B-8D	C136	A-7C	C341	B-10G	C517	B-17A	C546	A-8F	C575	B-6E	C604	B-4B	C633	A-6D	LD703	A-6B	TP502	B-9E			TB502	B-2A		
R729	B-2B	VR2	A-13C	C21	B-9B	C50	A-10C	C79	B-8B	C108	B-8C	C137	B-6B	C345	B-9F	C518	B-17B	C547	A-8F	C576	B-6E	C605	B-4B	C634	B-5A			TP503	B-9F	S1	A-14A	TB503	B-5F		
R730	B-2B	VR501	B-8E	C22	A-8C	C51	B-10C	C80	A-7C	C109	B-9D	C138	A-6C	C346	A-9F	C519	B-16B	C548	A-9E	C577	B-6E	C606	B-3B	C635	B-15B	T901	A-14E	TP504	B-4B	S2	A-15A				
R731	B-18A	VR502	B-8E	C23	A-9B	C52	B-10C	C81	B-7B	C110	A-9D	C139	A-7D	C348	A-10F	C520	B-16B	C549	A-9E	C578	A-5E	C607	A-4B	C701	A-1B			TP505	B-4B	S3	A-16B	BL901	A-15D		
R732	B-18A	VR503	B-8F	C24	A-11A	C53	A-10C	C82	B-8C	C111	B-11A	C140	A-7C	C349	A-10F	C521	B-17B	C550	A-8F	C579	B-6D	C608	A-3C	C702	A-2C	TP1	B-9B	TP506	B-15C	S4	A-17B				
R733	B-18B	VR504	B-8F	C25	B-10A	C54	B-11C	C83	A-8C	C112	A-9D	C141	A-7C	C350	A-10G	C522	B-17B	C551	A-8E	C580	A-6E	C609	A-6C	C703	A-2C	TP2	B-9B	TP507	B-15C	S501	A-15B	L302	B-9F		
R734	B-18B	VR505	A-5E	C26	A-10A	C55	B-11B	C84	A-8C	C113	A-9D	C142	A-7B	C351	A-10G	C523	B-5A	C552	A-8E	C581	B-6D	C610	A-4C	C704	A-2B	TP3	B-10B	TP508	B-14A	S701	A-3D	L303	A-9F		
R735	A-17B	VR506	B-14C	C27	A-10A	C56	B-11B	C85	A-9C	C114	A-10D	C143	A-7B	C352	A-10G	C524	B-5A	C553	B-9E	C582	B-6D	C611	B-15C	C705	B-3B	TP4	B-9B	TP509	B-14A	S702	A-3E	L501	B-15A		
R736	A-17B	VR507	B-14C	C28	B-10A	C57	B-11B	C86	A-6C	C115	B-10D	C144	A-7B	C353	A-10E	C525	B-5B	C554	B-9F	C583	A-6D	C612	B-16C	C706	B-17B	TP5	B-8B	TP510	B-14C	S703	A-17C	L502	B-16B		
R737	A-17B			C29	A-10B	C58	A-11C	C87	A-6C	C116	A-10C	C145	B-10A	C354	B-10E	C526	A-7D	C555	A-8E	C584	A-5E	C613	B-16C	C707	B-3B	TP6	B-9B	TP511	B-14C	S704	A-16C	L503	B-16B		
R738	A-17A	C1	A-8A	C30	B-11B	C59	A-11C	C88	B-7C	C117	B-9C	C146	B-10A	C355	A-10E	C527	B-8D	C556	A-8F	C585	B-4D	C614	B-15C	C708	B-17A	TP7	B-10B	TP512	B-5E	S705	A-18A	L504	B-17A		
R739	A-2A	C2	A-8A	C31	A-10B	C60	B-11C	C89	A-7C	C118	B-6C	C147	B-9C	C360	B-9F	C528	A-8D	C557	B-7F	C586	B-4D	C615	B-10D	C709	B-12A	TP8	B-10C	TP513	B-5C	S706	A-1B	L506	B-17A		
R740	A-6A	C3	A-8A	C32	A-10B	C61	A-11C	C90	B-8C	C119	B-7D	C315	B-9G	C361	A-10E	C529	B-8D	C558	B-8F	C587	B-5D	C616	B-10D	C710	B-12A	TP9	B-7B			S707	A-2C	L507	B-5C		
R741	A-6B	C4	B-8B	C33	A-9B	C62	B-12B	C91	A-8C	C120	A-7A	C316	B-9F	C501	B-15A	C530	A-8E	C559	B-7D	C588	B-5D	C617	A-10D	C711	B-13A	TP10	B-8C	CN1	A-1G	S708	A-18B	L907	A-12E		
R742	A-6B	C5	B-8A	C34	B-9B	C63	B-12B	C92	A-8C	C121	A-7A	C318	A-9F	C502	B-15A	C531	A-8E	C560	B-7E	C589	B-4E	C618	A-9D	C712	A-1C	TP11	B-8C	CN26	B-14A	S709	A-16A	L908	A-13E		
R743	A-6A	C6	B-7B	C35	A-9C	C64	B-9C	C93	B-7C	C122	B-7A	C326	B-10F	C503	B-15A	C532	A-8F	C561	B-7E	C590	B-5E	C619	A-10D	C958	A-12F	TP12	B-7C	CN27	B-13A	S710	A-17A				
R744	A-2A	C7	B-8B	C36	B-10B	C65	A-13B	C94	B-7C	C123	A-7A	C327	B-10F	C504	B-15B	C533	A-8F	C562	A-7E	C591	B-7F	C620	B-9D	C959	A-12F	TP13	B-10C	CN28	A-3A	S711	A-5B	PC1	A-9C		
R901	A-14D	C8	A-8B	C37	A-9C	C66	A-12B	C95	B-8C	C124	B-7A	C328	B-9F	C505	B-15B	C534	B-9D	C563	B-7E	C592	A-7F	C621	B-10D	C960	A-12F	TP14	B-10D	CN29	B-16A	S712	A-3B				

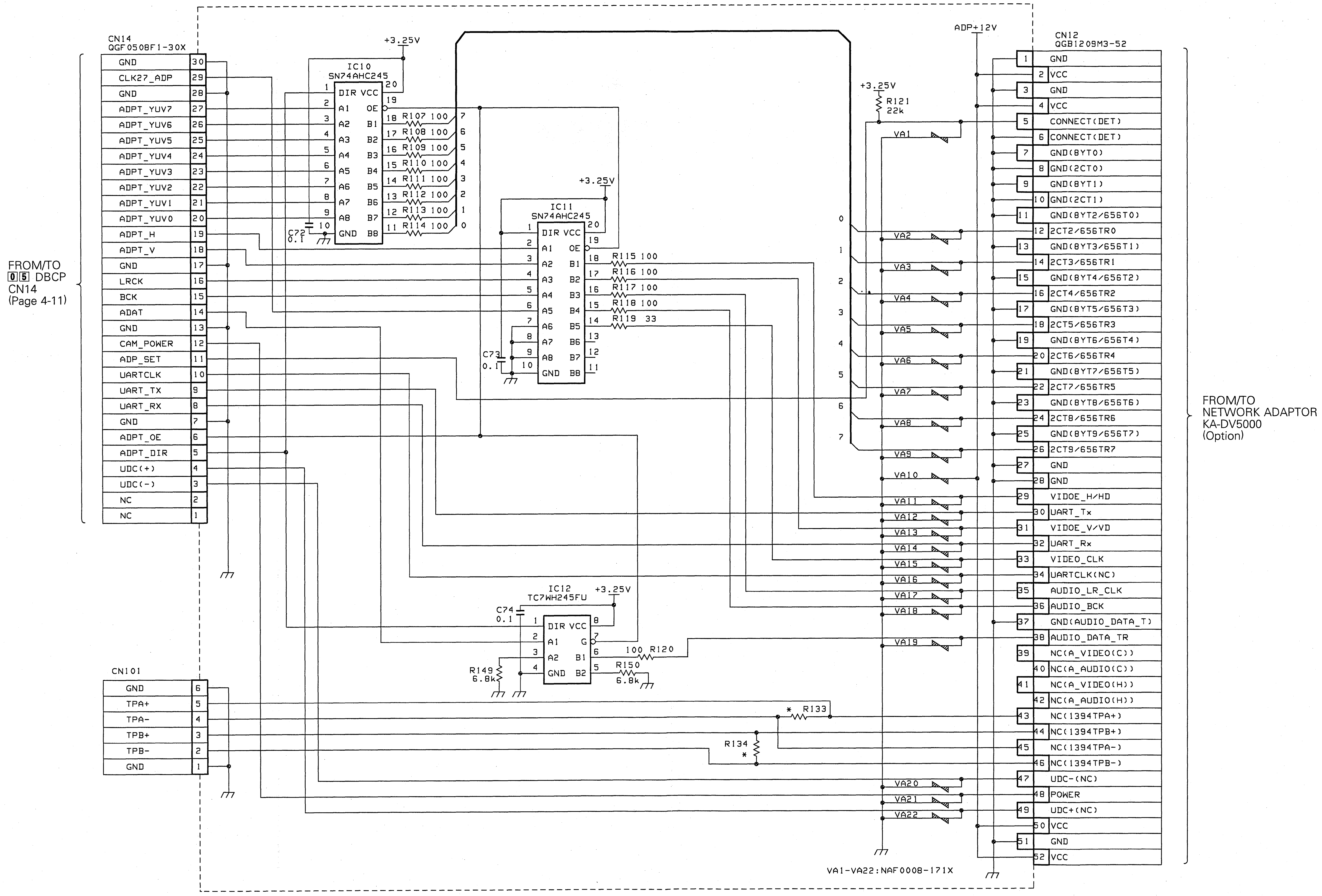
4.18 PSIF SCHEMATIC DIAGRAM 1/2



FROM/TO
21 PJNC
CN18
(Page 4-39)
CN18
UNSW+12V
GND
ADP+12V
P_ON
P_OFF
3.45V
Q1 HAT1020R
F1 T2A63V
F2 T2A63V
VB1
VB2
L1 33u
IC1 NJM78L03UA
IC13.1 NJM2903M
IC13.2
Q15 2SC4081/QRS
Q2 2SA1576A/QRS
Q3 2SC4081/QRS
IC4 MB3886PFV
IC5 LP3965EMP-ADJ
IC6 MB3785APFV
IC7 NJM78L12UA
IC8 NJM79L08UA
IC9 NJM79L05UA
IC2.1 TC7W00F
IC2.2
IC3.1 TC74HC4538AFT
IC3.2
Q4 2SC4081/QRS
Q5 2SA1576A/QRS
Q6 DTC124EUA
Q7 DTC124EUA
Q8 RDS035L03
Q9 RDS035L03
Q10 2SA2013
Q11 2SA2013
Q12 2SA2013
Q13 2SA2013
Q14 2SC4081/QRS
Q16 2SC4081/QRS
Q17 2SB1189/QR
Q18
T1 NQR0471-001
TB1 PGZ02228
TB2 PGZ02228
+5V
+3.45V
+1.8V
+48V
+15V
+12V
-8V
+9V
-9V
-5V
+3.25V
CN15
TO 21
PJNC
CN15
(Page 4-39)
15V
48V
5V
12V
1.8V
3.25V
-5V
9V
-8V
GND
OG
PG
PG2

20 PSIF

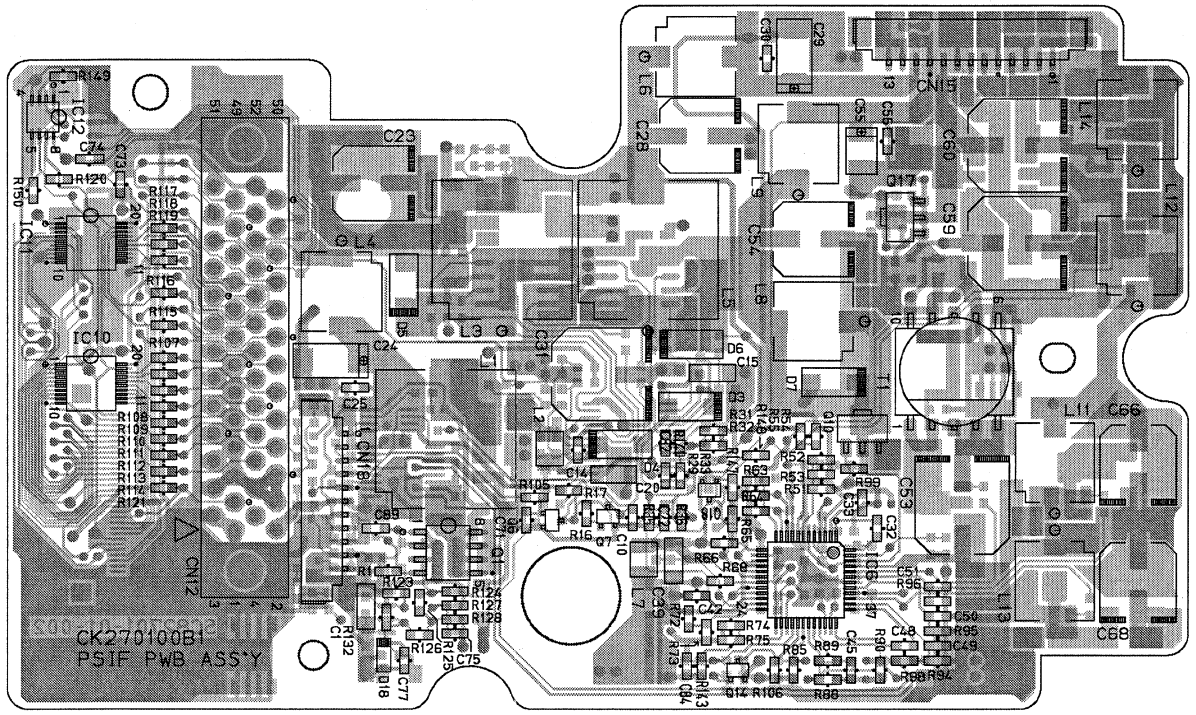
– PSIF SCHEMATIC DIAGRAM 2/2 –


CN14
QGF0508F1-30X
30 GND
29 CLK27_ADP
28 GND
27 ADPT_YUV7
26 ADPT_YUV6
25 ADPT_YUV5
24 ADPT_YUV4
23 ADPT_YUV3
22 ADPT_YUV2
21 ADPT_YUV1
20 ADPT_YUV0
19 ADPT_H
18 ADPT_V
17 GND
16 LRCK
15 BCK
14 ADAT
13 GND
12 CAM_POWER
11 ADP_SET
10 UARTCLK
9 UART_TX
8 UART_RX
7 GND
6 ADPT_OE
5 ADPT_DIR
4 UDC(+)
3 UDC(-)
2 NC
1 NC
FROM/TO
05 DBCP
CN14
(Page 4-11)
+3.25V
IC10
SN74AHC245
DIR VCC
A1 OE
A2 B1
A3 B2
A4 B3
A5 B4
A6 B5
A7 B6
A8 B7
GND B8
R107 100
R108 100
R109 100
R110 100
R111 100
R112 100
R113 100
R114 100
C72
0.1
IC11
SN74AHC245
R115 100
R116 100
R117 100
R118 100
R119 33
C73
0.1
IC12
TC7WH245FU
DIR VCC
A1 G
A2 B1
GND B2
C74
0.1
R120 100
R149
6.8k
R150
6.8k
CN101
6 GND
5 TPA+
4 TPA-
3 TPB+
2 TPB-
1 GND
R133 *
R134 *
ADP+12V
+3.25V
R121
22k
VA1
VA2
VA3
VA4
VA5
VA6
VA7
VA8
VA9
VA10
VA11
VA12
VA13
VA14
VA15
VA16
VA17
VA18
VA19
VA20
VA21
VA22
VA1-VA22:NAF0008-171X
CN12
QGB1209M3-52
1 GND
2 VCC
3 GND
4 VCC
5 CONNECT(DET)
6 CONNECT(DET)
7 GND(8YT0)
8 GND(2CT0)
9 GND(8YT1)
10 GND(2CT1)
11 GND(8YT2/656T0)
12 2CT2/656TR0
13 GND(8YT3/656T1)
14 2CT3/656TR1
15 GND(8YT4/656T2)
16 2CT4/656TR2
17 GND(8YT5/656T3)
18 2CT5/656TR3
19 GND(8YT6/656T4)
20 2CT6/656TR4
21 GND(8YT7/656T5)
22 2CT7/656TR5
23 GND(8YT8/656T6)
24 2CT8/656TR6
25 GND(8YT9/656T7)
26 2CT9/656TR7
27 GND
28 GND
29 VIDOE_H/HD
30 UART_Tx
31 VIDOE_V/VD
32 UART_Rx
33 VIDEO_CLK
34 UARTCLK(NC)
35 AUDIO_LR_CLK
36 AUDIO_BCK
37 GND(AUDIO_DATA_T)
38 AUDIO_DATA_TR
39 NC(A_VIDEO(C))
40 NC(A_AUDIO(C))
41 NC(A_VIDEO(H))
42 NC(A_AUDIO(H))
43 NC(1394TPA+)
44 NC(1394TPB+)
45 NC(1394TPA-)
46 NC(1394TPB-)
47 UDC-(NC)
48 POWER
49 UDC+(NC)
50 VCC
51 GND
52 VCC
FROM/TO
NETWORK ADAPTOR
KA-DV5000
(Option)

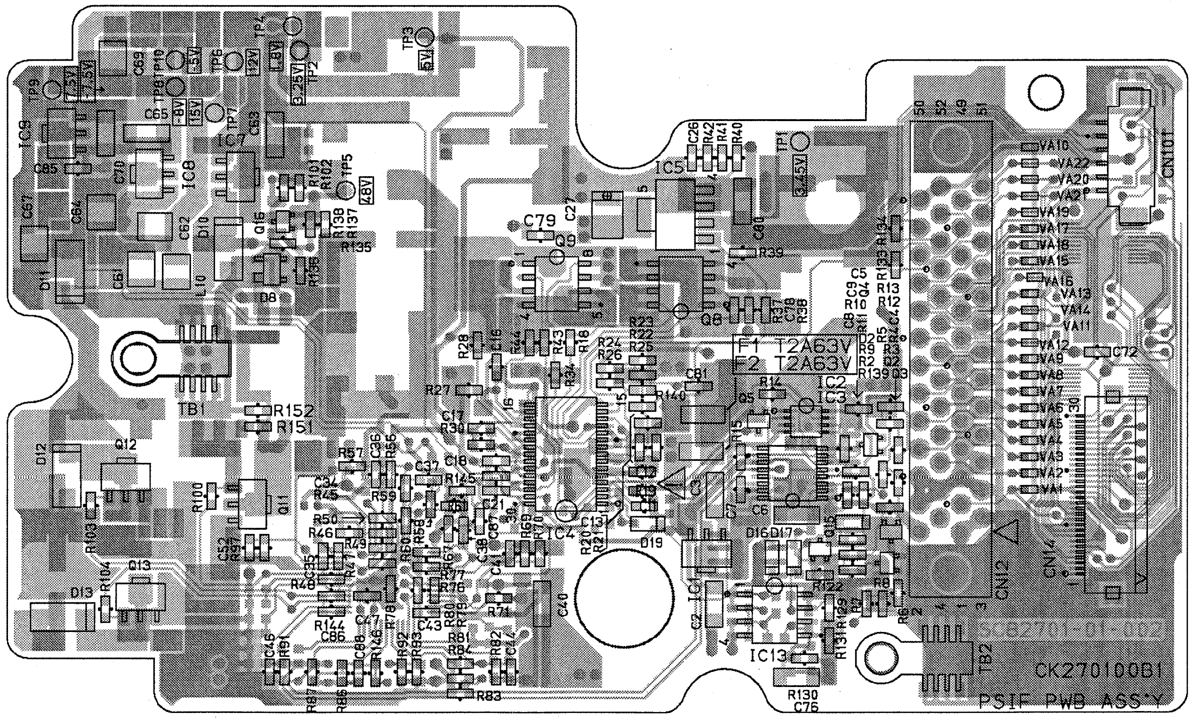
4.19 PSIF & PJNC CIRCUIT BOARDS

– PSIF –

– SIDE A –

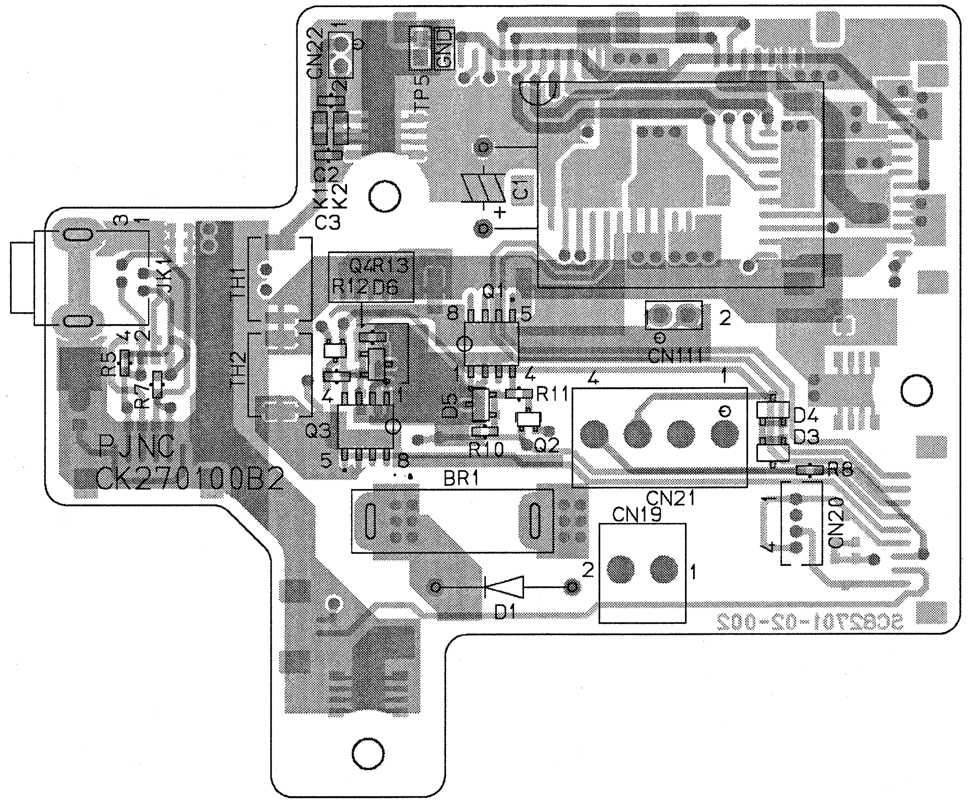

CK270100B1
PSIF PWB ASS'Y
SC82701-01-002
CN12
CN15
IC10
IC11
T1

– SIDE B –

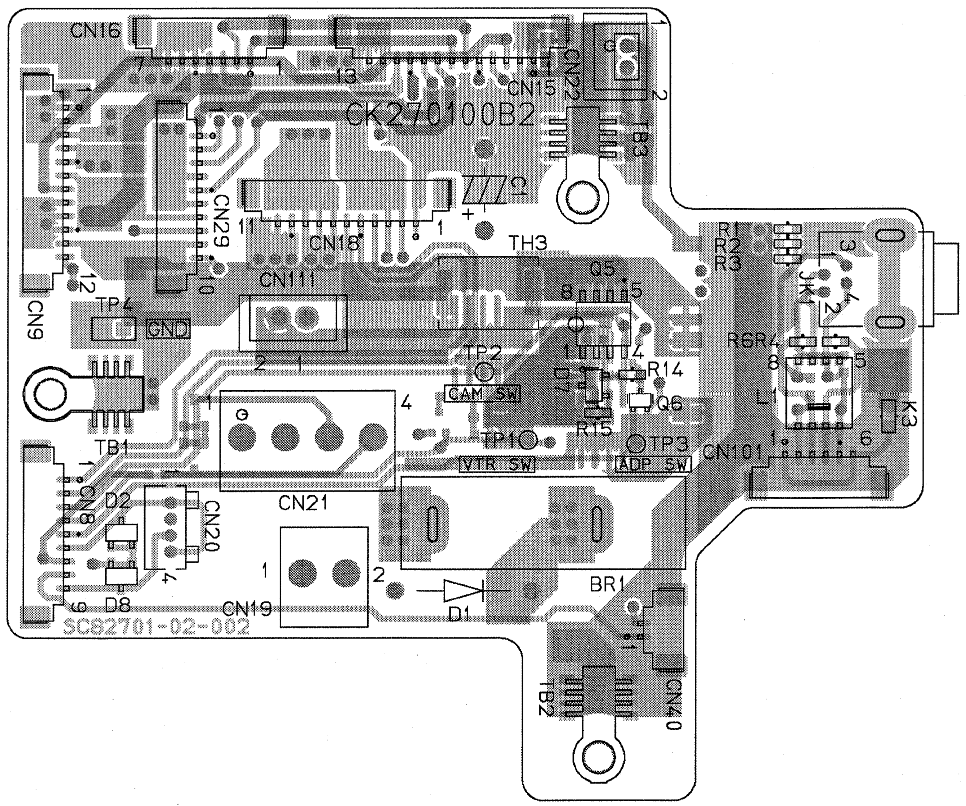

CK270100B1
PSIF PWB ASS'Y
SC82701-01-002
F1 T2A63V
F2 T2A63V
CN12
CN14
CN101
TB1
TB2

– PJNC –

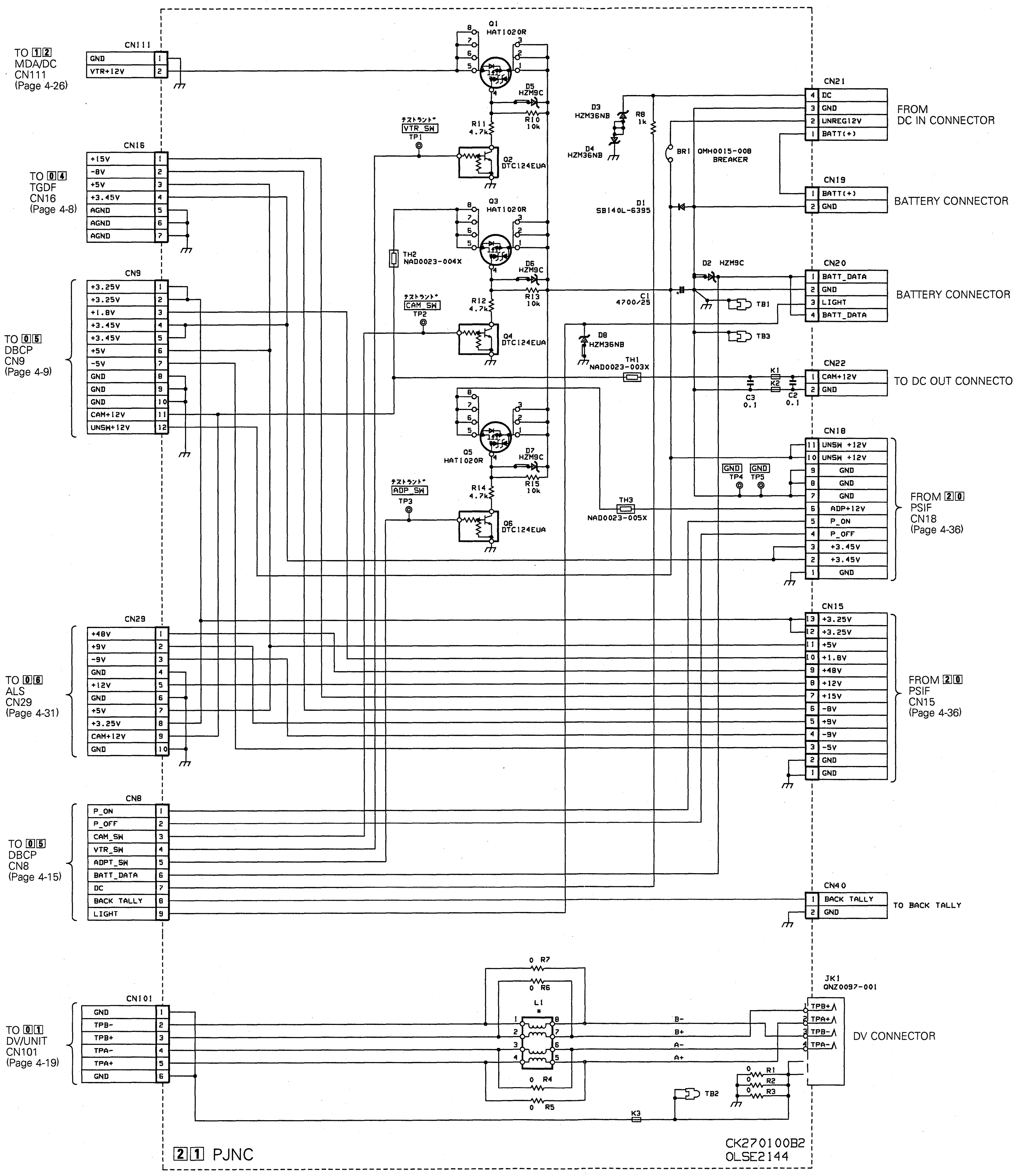
– SIDE A –


PJNC
CK270100B2
SC82701-02-002
JK1
TH1
TH2
BR1
CN19
CN21
CN20
CN22
CN111
D1

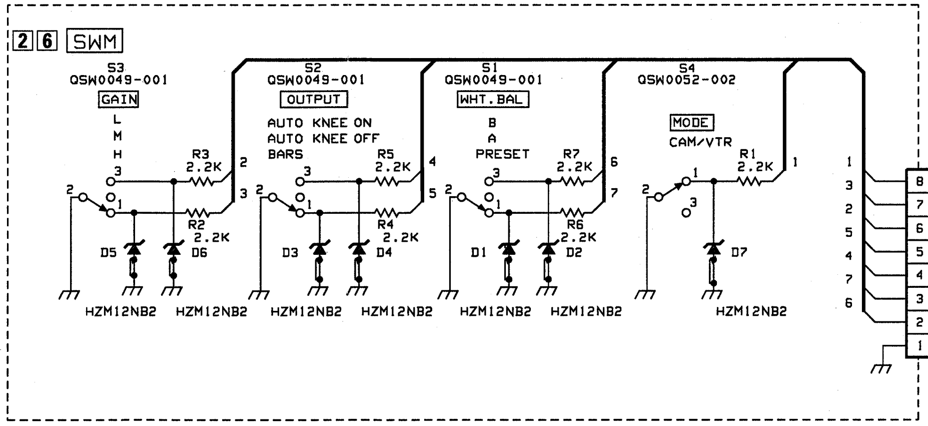
– SIDE B –

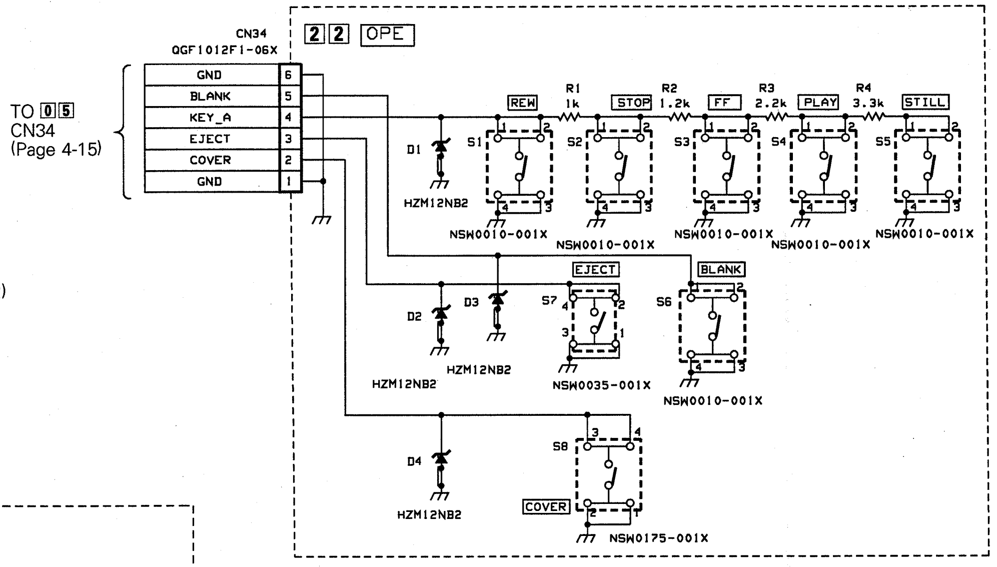

CK270100B2
SC82701-02-002
CN16
CN15
CN22
CN29
CN18
CN111
CN21
CN19
CN20
CN101
CN40
TB1
TB2
TB3
TH3
BR1
JK1
CAM SW
VTR SW
ADP SW
GND

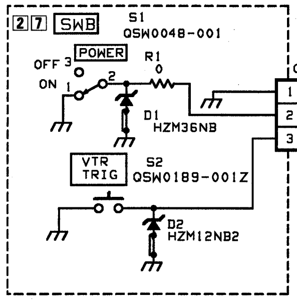
4.20 PJNC SCHEMATIC DIAGRAM

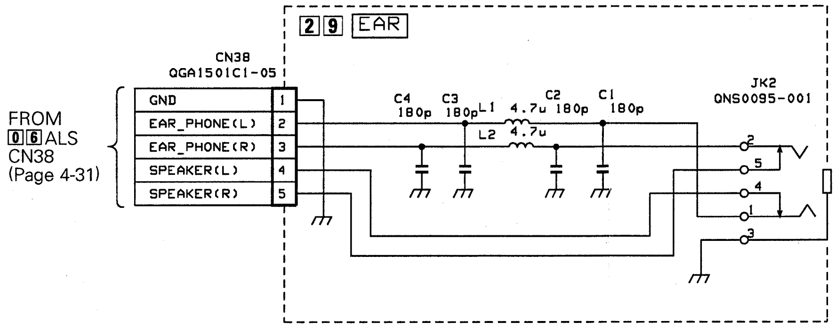

TO 1 2 MDA/DC CN111 (Page 4-26)
CN111
GND 1
VTR+12V 2
TO 0 4 TGDF CN16 (Page 4-8)
CN16
+15V 1
-8V 2
+5V 3
+3.45V 4
AGND 5
AGND 6
AGND 7
TO 0 5 DBCP CN9 (Page 4-9)
CN9
+3.25V 1
+3.25V 2
+1.8V 3
+3.45V 4
+3.45V 5
+5V 6
-5V 7
GND 8
GND 9
GND 10
CAM+12V 11
UNSW+12V 12
TO 0 6 ALS CN29 (Page 4-31)
CN29
+48V 1
+9V 2
-9V 3
GND 4
+12V 5
GND 6
+5V 7
+3.25V 8
CAM+12V 9
GND 10
TO 0 5 DBCP CN8 (Page 4-15)
CN8
P_ON 1
P_OFF 2
CAM_SW 3
VTR_SW 4
ADPT_SW 5
BATT_DATA 6
DC 7
BACK TALLY 8
LIGHT 9
TO 0 1 DV/UNIT CN101 (Page 4-19)
CN101
GND 1
TPB- 2
TPB+ 3
TPA- 4
TPA+ 5
GND 6
Q1 HAT1020R
D5 HZM9C
R10 10k
R11 4.7k
テストランド VTR_SW TP1
Q2 DTC124EUA
Q3 HAT1020R
TH2 NAD0023-004X
D6 HZM9C
R13 10k
R12 4.7k
テストランド CAM_SW TP2
Q4 DTC124EUA
Q5 HAT1020R
D7 HZM9C
R15 10k
R14 4.7k
テストランド ADP_SW TP3
Q6 DTC124EUA
D3 HZM36NB
D4 HZM36NB
R8 1k
BR1 QMH0015-008 BREAKER
D1 SB140L-6395
D2 HZM9C
C1 4700/25
TB1
TB3
D8 HZM36NB
TH1 NAD0023-003X
K1
K2
C3 0.1
C2 0.1
TH3 NAD0023-005X
GND TP4
GND TP5
CN21
4 DC
3 GND
2 UNREG12V
1 BATT(+)
FROM DC IN CONNECTOR
CN19
1 BATT(+)
2 GND
BATTERY CONNECTOR
CN20
1 BATT_DATA
2 GND
3 LIGHT
4 BATT_DATA
BATTERY CONNECTOR
CN22
1 CAM+12V
2 GND
TO DC OUT CONNECTOR
CN18
11 UNSW +12V
10 UNSW +12V
9 GND
8 GND
7 GND
6 ADP+12V
5 P_ON
4 P_OFF
3 +3.45V
2 +3.45V
1 GND
FROM 2 0 PSIF CN18 (Page 4-36)
CN15
13 +3.25V
12 +3.25V
11 +5V
10 +1.8V
9 +48V
8 +12V
7 +15V
6 -8V
5 +9V
4 -9V
3 -5V
2 GND
1 GND
FROM 2 0 PSIF CN15 (Page 4-36)
CN40
1 BACK TALLY
2 GND
TO BACK TALLY
0 R7
0 R6
L1
0 R4
0 R5
B-
B+
A-
A+
JK1 QNZ0097-001
TPB+
TPA+
TPB-
TPA-
DV CONNECTOR
0 R1
0 R2
0 R3
TB2
K3
2 1 PJNC
CK270100B2
OLSE2144

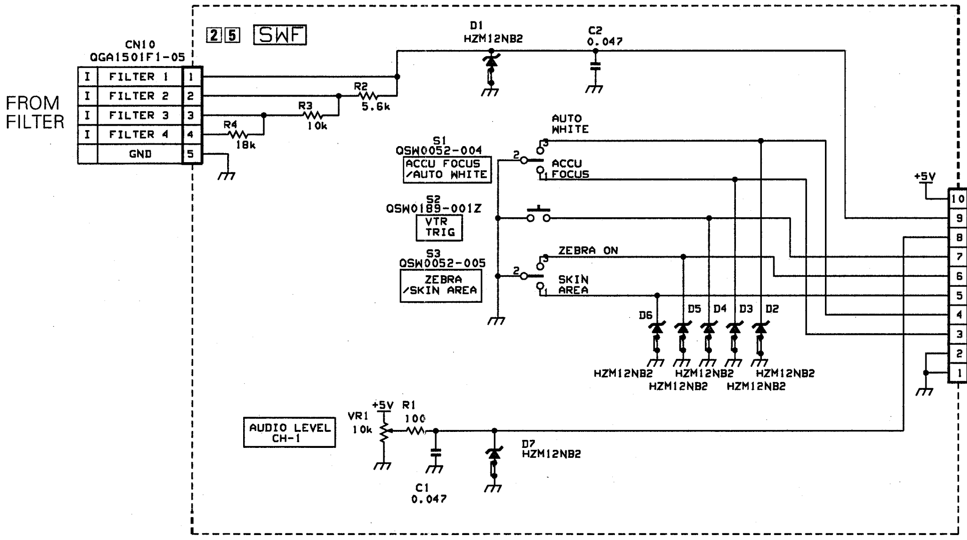
4.21 OPE, SWM, SWB, SWF, EAR, AVO, XLRF & XLRR SCHEMATIC DIAGRAMS

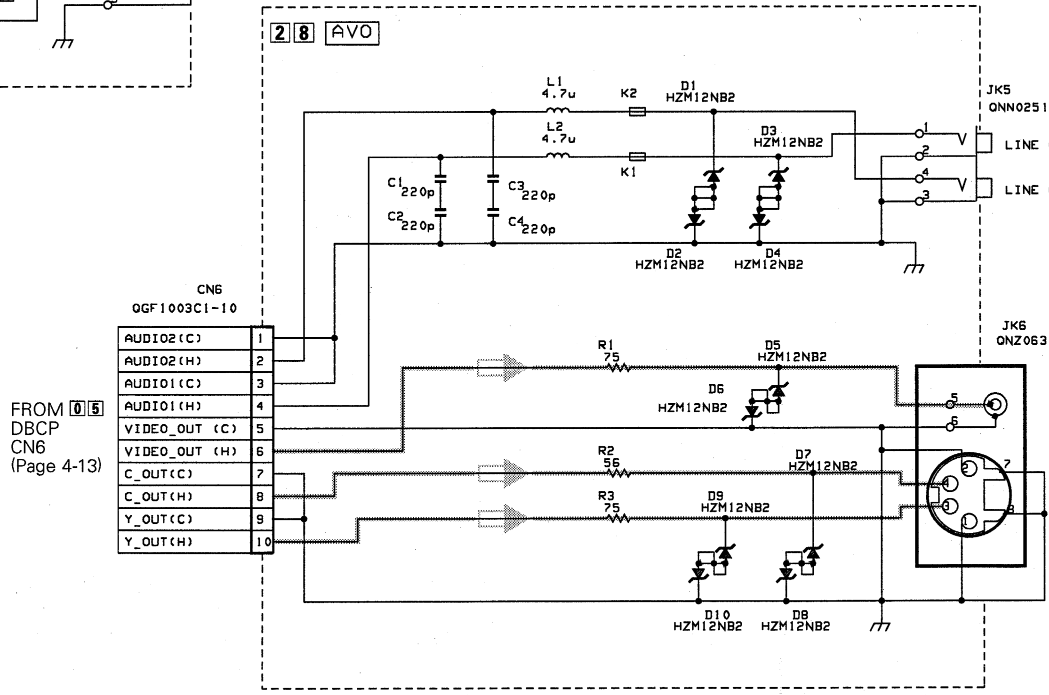

26 SWM
S3 QSW0049-001 GAIN L M H
S2 QSW0049-001 OUTPUT AUTO KNEE ON AUTO KNEE OFF BARS
S1 QSW0049-001 WHT.BAL B A PRESET
S4 QSW0052-002 MODE CAM/VTR
R3 2.2K R2 2.2K R5 2.2K R4 2.2K R7 2.2K R6 2.2K R1 2.2K
D5 D6 D3 D4 D1 D2 D7
HZM12NB2
CN28 QGF1004F1-08
8 MODE
7 GAIN_H
6 GAIN_L
5 BARS
4 AUTO_KNEE
3 PRESET
2 AUTO_B
1 GND
TO 06 ALS CN28 (Page 4-32)

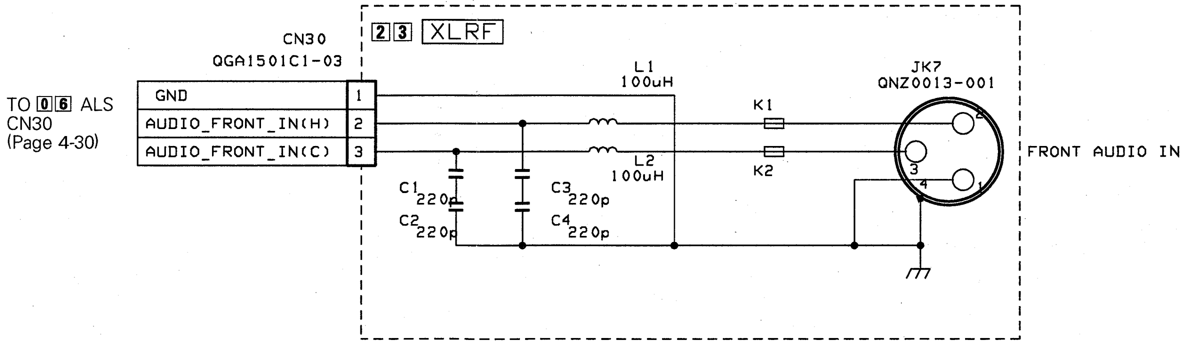

22 OPE
CN34 QGF1012F1-06X
GND 6
BLANK 5
KEY_A 4
EJECT 3
COVER 2
GND 1
TO 05 CN34 (Page 4-15)
REW R1 1k STOP R2 1.2k FF R3 2.2k PLAY R4 3.3k STILL
S1 S2 S3 S4 S5
D1 HZM12NB2
NSW0010-001X
EJECT BLANK
D2 D3 S7 S6
HZM12NB2
NSW0035-001X
NSW0010-001X
D4 HZM12NB2
S8 COVER
NSW0175-001X

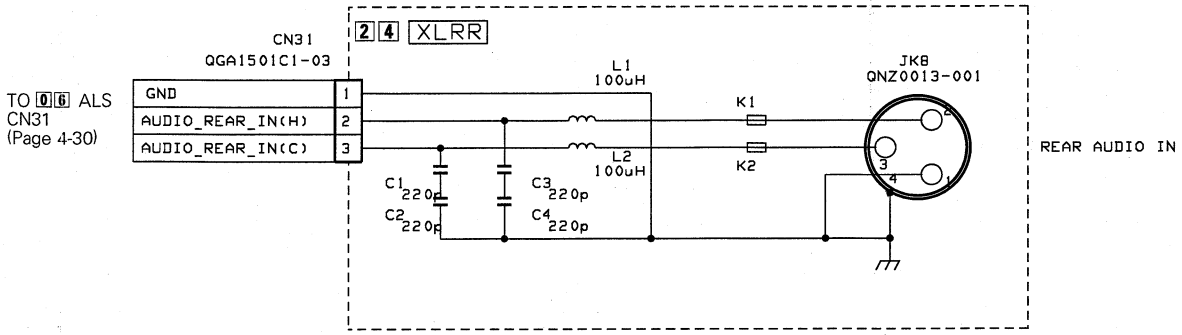

27 SWB
S1 QSW0048-001
POWER
OFF ON
R1 0
D1 HZM36NB
VTR TRIG
S2 QSW0189-001Z
D2 HZM12NB2
CN41 QGA1501F1-03
1 GND
2 P_ON
3 VTR_TRIG
TO 06 ALS CN41 (Page 4-32)


29 EAR
FROM 06 ALS CN38 (Page 4-31)
CN38 QGA1501C1-05
GND 1
EAR_PHONE(L) 2
EAR_PHONE(R) 3
SPEAKER(L) 4
SPEAKER(R) 5
C4 180p C3 180p L1 4.7u L2 4.7u C2 180p C1 180p
JK2 QNS0095-001
PHONES


25 SWF
FROM FILTER
CN10 QGA1501F1-05
FILTER 1
FILTER 2
FILTER 3
FILTER 4
GND
R2 5.6k R3 10k R4 18k
D1 HZM12NB2 C2 0.047
S1 QSW0052-004 ACCU FOCUS /AUTO WHITE
AUTO WHITE ACCU FOCUS
S2 QSW0189-001Z VTR TRIG
S3 QSW0052-005 ZEBRA /SKIN AREA
ZEBRA ON SKIN AREA
D6 D5 D4 D3 D2 HZM12NB2
AUDIO LEVEL CH-1 VR1 10k R1 100 C1 0.047 D7 HZM12NB2
+5V
CN33 QGF1004F1-10
10 +5V
9 FILTER
8 AUDIO_ADJ
7 FRONT_TRIG
6 ZEBRA
5 ASKIN_AREA
4 AUTO_WHITE
3 ACCU_FOCUS
2 GND
1 GND
FROM/TO 05 DBCP CN33 (Page 4-15)


28 AVO
L1 4.7u K2 D1 HZM12NB2
L2 4.7u K1 D3 HZM12NB2
C1 220p C2 220p C3 220p C4 220p
D2 HZM12NB2 D4 HZM12NB2
JK5 QNN0251-001
LINE OUT CH-1
LINE OUT CH-2
FROM 05 DBCP CN6 (Page 4-13)
CN6 QGF1003C1-10
AUDIO2(C) 1
AUDIO2(H) 2
AUDIO1(C) 3
AUDIO1(H) 4
VIDEO_OUT (C) 5
VIDEO_OUT (H) 6
C_OUT(C) 7
C_OUT(H) 8
Y_OUT(C) 9
Y_OUT(H) 10
R1 75 D5 HZM12NB2 D6 HZM12NB2
R2 56 D7 HZM12NB2
R3 75 D9 HZM12NB2
D10 HZM12NB2 D8 HZM12NB2
JK6 QNZ0630-001
MONITOR OUT
Y/C OUT

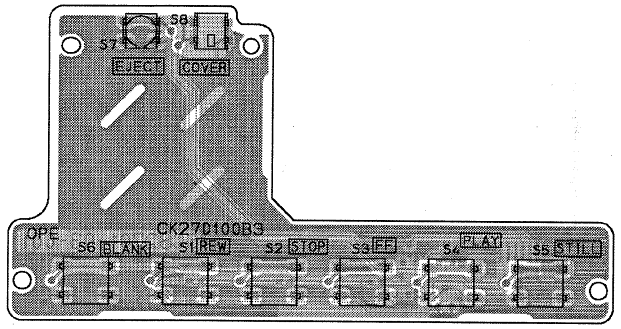

23 XLRF
TO 06 ALS CN30 (Page 4-30)
CN30 QGA1501C1-03
GND 1
AUDIO_FRONT_IN(H) 2
AUDIO_FRONT_IN(C) 3
L1 100uH L2 100uH K1 K2
C1 220p C2 220p C3 220p C4 220p
JK7 QNZ0013-001
FRONT AUDIO IN


24 XLRR
TO 06 ALS CN31 (Page 4-30)
CN31 QGA1501C1-03
GND 1
AUDIO_REAR_IN(H) 2
AUDIO_REAR_IN(C) 3
L1 100uH L2 100uH K1 K2
C1 220p C2 220p C3 220p C4 220p
JK8 QNZ0013-001
REAR AUDIO IN

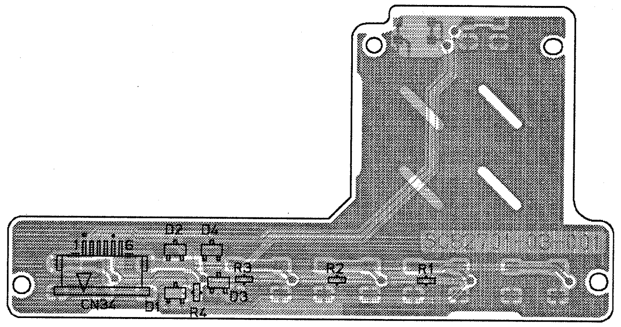
4.22 OPE, SWM, SWB, SWF, EAR, AVO, XLRF & XLRR CIRCUIT BOARDS

– OPE –

– SIDE A –

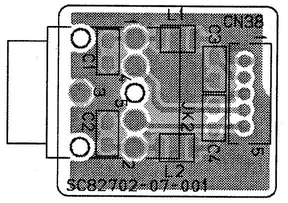

S7
S8
EJECT
COVER
OPE
CK270100B3
S6 BLANK
S1 REW
S2 STOP
S3 FF
S4 PLAY
S5 STILL

– SIDE B –


1
6
D2
D4
R3
D3
R2
R1
CN34
D1
R4

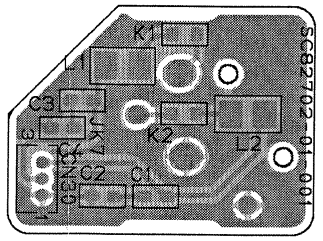
– EAR –

– SIDE B –


L1
CN38
C1
C3
C2
K2
L2
C4
5
SC82702-07-001

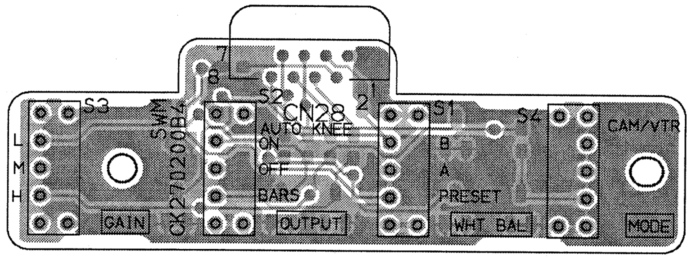
– XLRF –

– SIDE B –

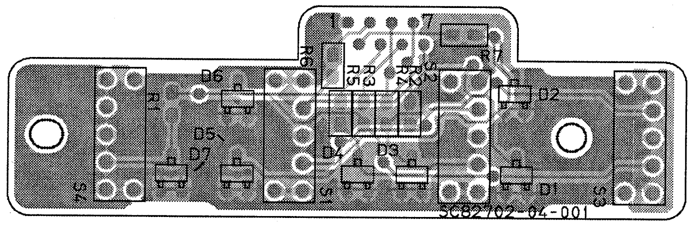

K1
L1
C3
JK7
K2
L2
CN30
C2
C1
SC82702-01-001

– SWM –

– SIDE A –

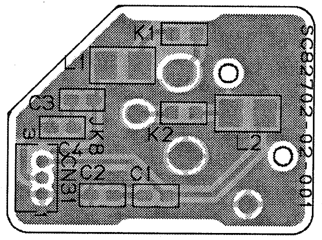

7
8
S3
SWM
CK270200B4
CN28
S2
1
2
S1
S4
CAM/VTR
L
M
H
AUTO KNEE
ON
OFF
BARS
B
A
PRESET
GAIN
OUTPUT
WHT BAL
MODE

– SIDE B –


1
7
R6
R3
R5
R2
R4
R7
D6
R1
D2
D5
D7
D4
D3
D1
S4
S1
S2
S3
SC82702-04-001

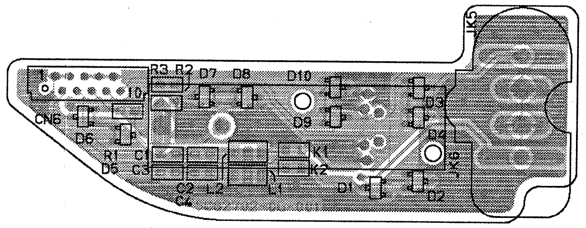
– XLRR –

– SIDE B –


K1
L1
C3
JK8
K2
L2
CN31
C4
C2
C1
SC82702-02-001

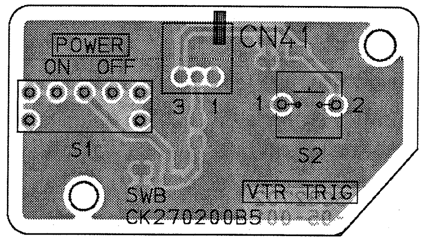
– AVO –

– SIDE B –

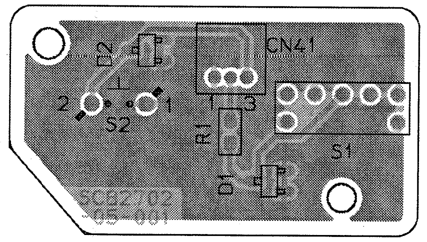

JK5
R3
R2
D7
D8
D10
CN6
D6
R1
D5
C1
C3
D9
K1
K2
C2
C4
L2
L1
D1
D2
D3
D4
RX1

– SWB –

– SIDE A –

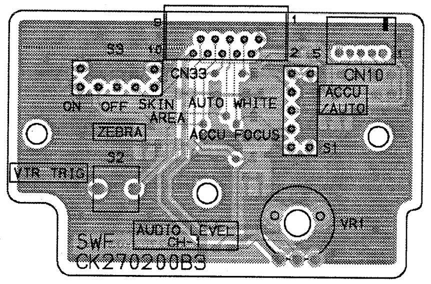

POWER
ON OFF
CN41
3
1
2
S1
S2
SWB
VTR TRIG
CK270200B5

– SIDE B –

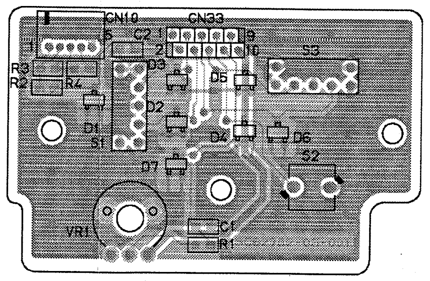

D2
CN41
2
1
S2
R1
3
S1
D1
SC82702-05-001

– SWF –

– SIDE A –

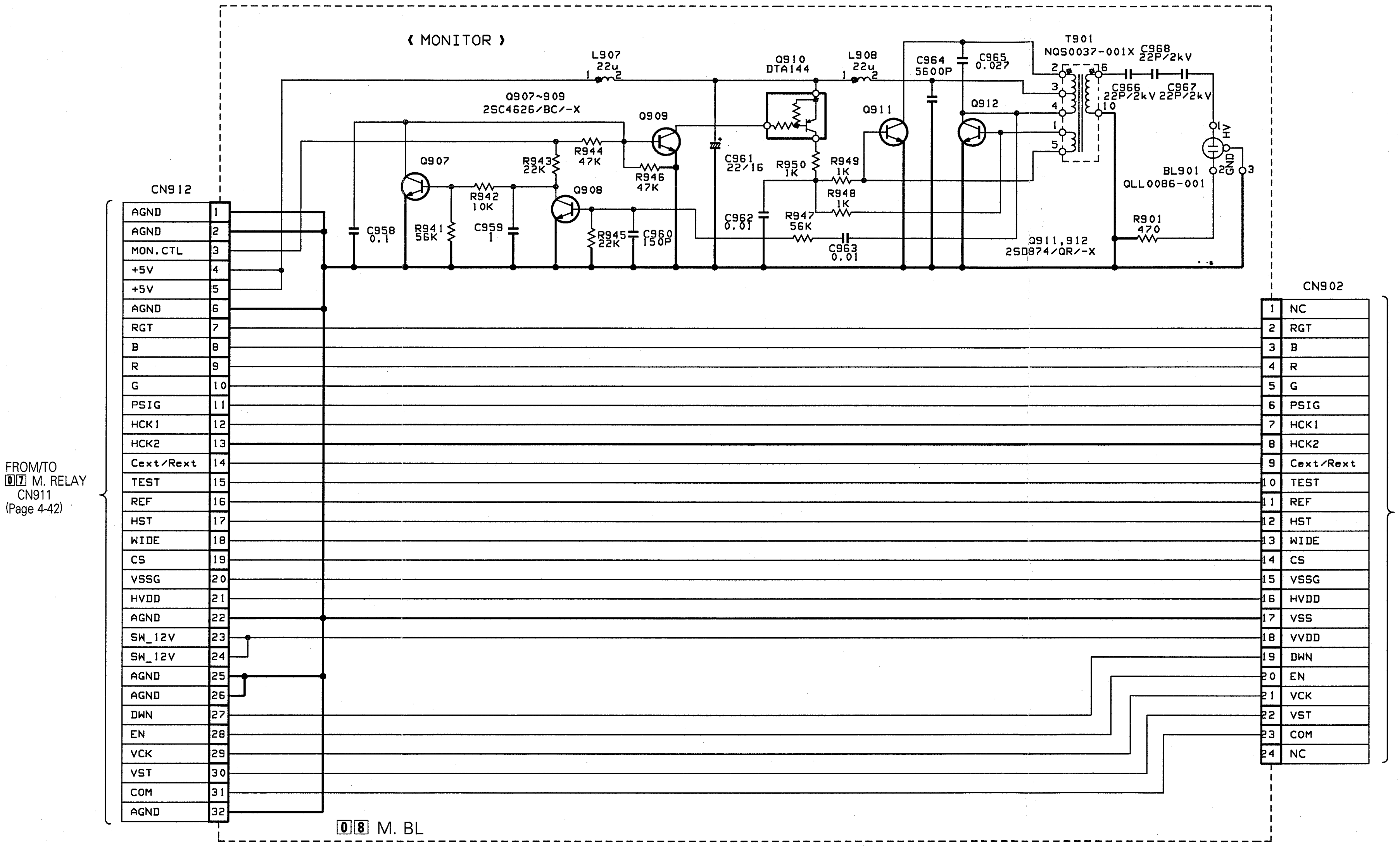

S3
CN33
CN10
ON OFF
SKIN AREA
AUTO WHITE
ACCU /AUTO
ZEBRA
ACCU FOCUS
S1
S2
VTR TRIG
AUDIO LEVEL CH-1
VR1
SWF
CK270200B3

– SIDE B –

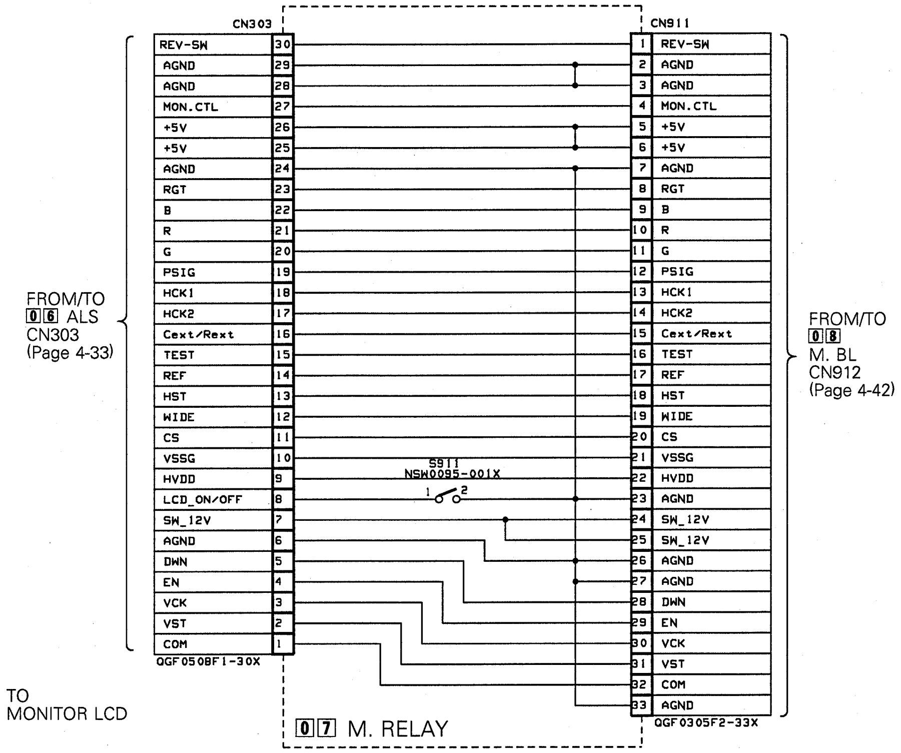

CN10
CN33
C2
R3
R2
R4
D3
D5
S3
D1
S1
D2
D4
D6
S2
D7
VR1
C1
R1

4.23 M. BL & M. RELAY SCHEMATIC DIAGRAMS

— M. BL —


《 MONITOR 》
CN912
AGND 1
AGND 2
MON.CTL 3
+5V 4
+5V 5
AGND 6
RGT 7
B 8
R 9
G 10
PSIG 11
HCK1 12
HCK2 13
Cext/Rext 14
TEST 15
REF 16
HST 17
WIDE 18
CS 19
VSSG 20
HVDD 21
AGND 22
SW_12V 23
SW_12V 24
AGND 25
AGND 26
DWN 27
EN 28
VCK 29
VST 30
COM 31
AGND 32
FROM/TO
07 M. RELAY
CN911
(Page 4-42)
L907 22u
L908 22u
Q907~909 2SC4626/BC/-X
Q907
Q908
Q909
Q910 DTA144
Q911
Q912
Q911,912 2SD874/QR/-X
C958 0.1
R941 56K
R942 10K
C959 1
R943 22K
R944 47K
R946 47K
R945 22K
C960 150P
C961 22/16
R950 1K
R949 1K
R948 1K
R947 56K
C962 0.01
C963 0.01
C964 5600P
C965 0.027
T901 NQS0037-001X
C966 22P/2kV
C967 22P/2kV
C968 22P/2kV
HV
GND
BL901 QLL0086-001
R901 470
CN902
1 NC
2 RGT
3 B
4 R
5 G
6 PSIG
7 HCK1
8 HCK2
9 Cext/Rext
10 TEST
11 REF
12 HST
13 WIDE
14 CS
15 VSSG
16 HVDD
17 VSS
18 VVDD
19 DWN
20 EN
21 VCK
22 VST
23 COM
24 NC
TO
MONITOR LCD
08 M. BL

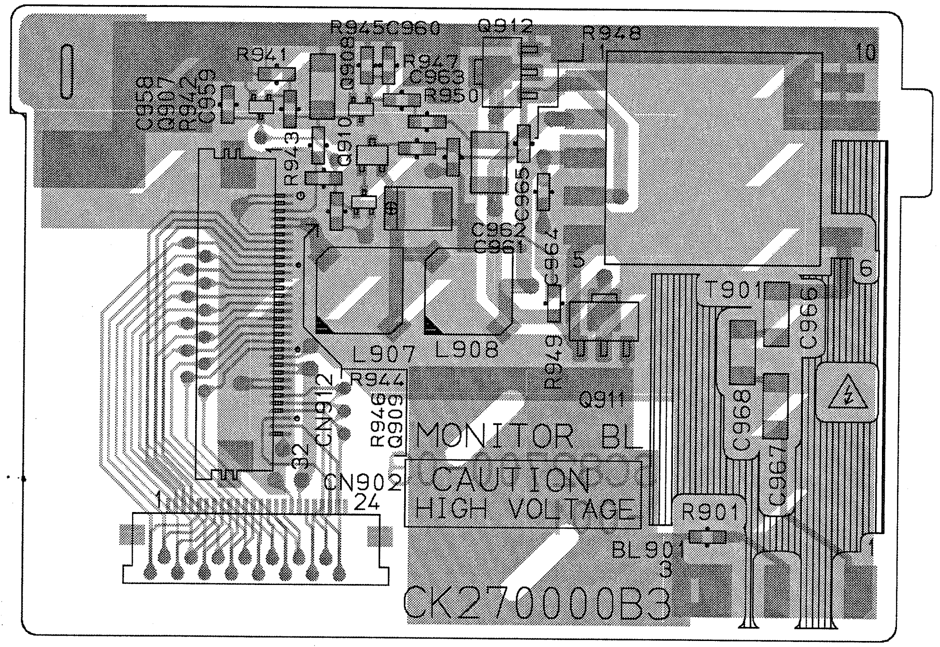
— M. RELAY —


CN303
REV-SW 30
AGND 29
AGND 28
MON.CTL 27
+5V 26
+5V 25
AGND 24
RGT 23
B 22
R 21
G 20
PSIG 19
HCK1 18
HCK2 17
Cext/Rext 16
TEST 15
REF 14
HST 13
WIDE 12
CS 11
VSSG 10
HVDD 9
LCD_ON/OFF 8
SW_12V 7
AGND 6
DWN 5
EN 4
VCK 3
VST 2
COM 1
QGF0508F1-30X
FROM/TO
06 ALS
CN303
(Page 4-33)
S911
NSW0095-001X
CN911
1 REV-SW
2 AGND
3 AGND
4 MON.CTL
5 +5V
6 +5V
7 AGND
8 RGT
9 B
10 R
11 G
12 PSIG
13 HCK1
14 HCK2
15 Cext/Rext
16 TEST
17 REF
18 HST
19 WIDE
20 CS
21 VSSG
22 HVDD
23 AGND
24 SW_12V
25 SW_12V
26 AGND
27 AGND
28 DWN
29 EN
30 VCK
31 VST
32 COM
33 AGND
QGF0305F2-33X
FROM/TO
08
M. BL
CN912
(Page 4-42)
07 M. RELAY

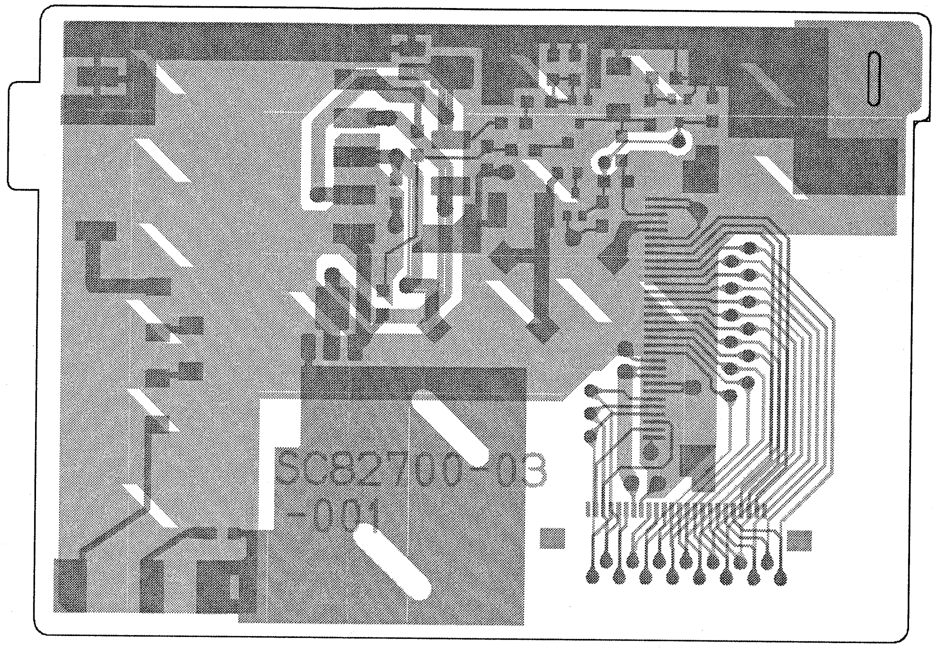
4.24 M. BL & M. RELAY CIRCUIT BOARDS

– M. BL –

– SIDE A –

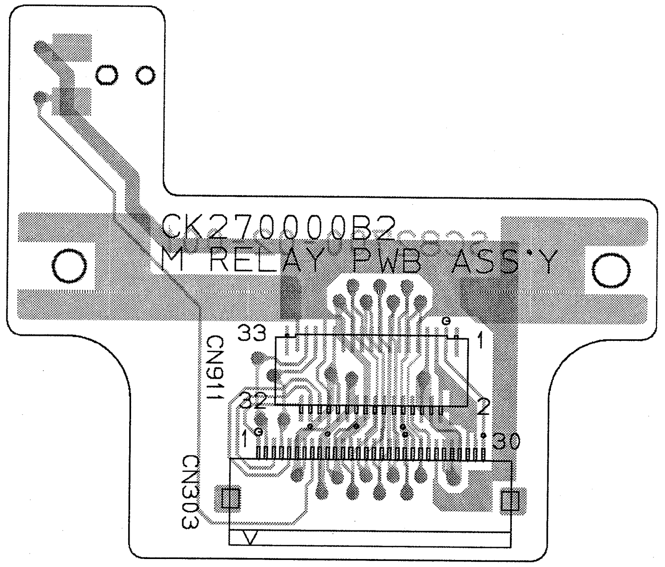

R945
C960
Q912
R948
10
R941
Q908
R947
C963
R950
C958
Q907
R942
C959
R943
Q910
C965
C962
C961
C964
5
6
T901
C966
L907
L908
R949
Q911
CN912
R944
R946
Q909
C968
32
CN902
24
1
MONITOR BL
CAUTION
HIGH VOLTAGE
C967
R901
BL901
3
1
CK270000B3

– SIDE B –

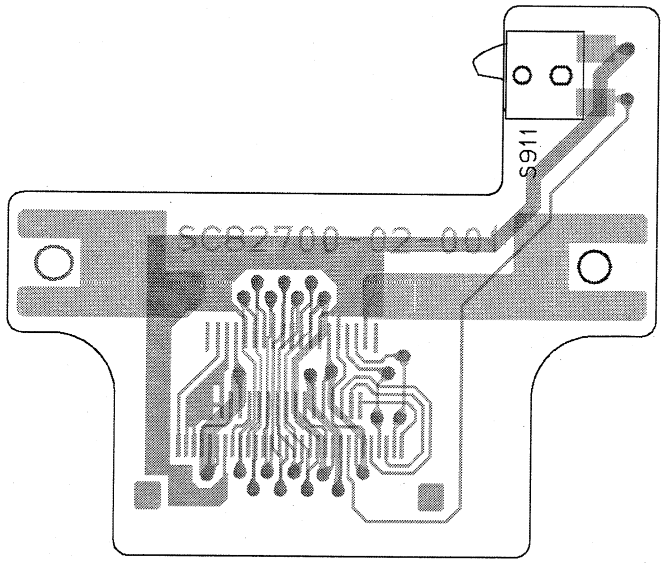

SC82700-03
-001

– M. RELAY –

– SIDE A –


CK270000B2
M RELAY PWB ASS'Y
33
1
CN911
32
2
1
30
CN303

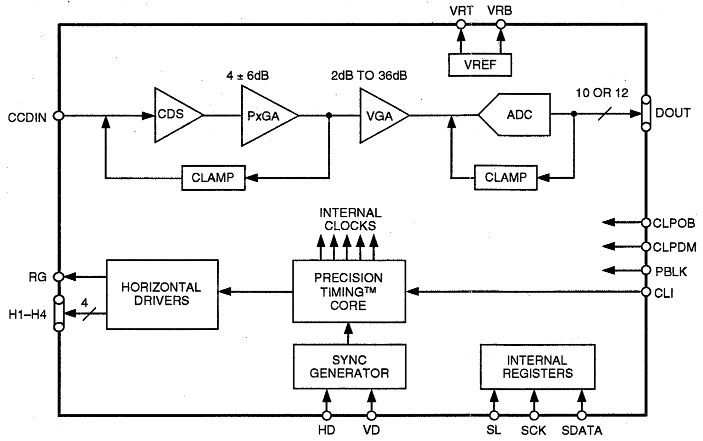
– SIDE B –


S911
SC82700-02-001

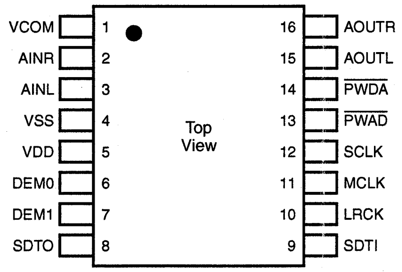
4.25 IC BLOCK DIAGRAMS

■ AD9849AKST-W [ANALOG DEVICES]
(CCD Signal Processors with Integrated Timing Driver)

BLOCK DIAGRAM


VRT
VRB
VREF
4 ± 6dB
2dB TO 36dB
10 OR 12
CCDIN
CDS
PxGA
VGA
ADC
DOUT
CLAMP
CLAMP
INTERNAL CLOCKS
CLPOB
CLPDM
PBLK
CLI
RG
H1–H4
4
HORIZONTAL DRIVERS
PRECISION TIMING™ CORE
SYNC GENERATOR
INTERNAL REGISTERS
HD
VD
SL
SCK
SDATA

■ AK4550VT-X [ASAHI KASEI]
(Low Voltage 16bit AD/DA Converter)

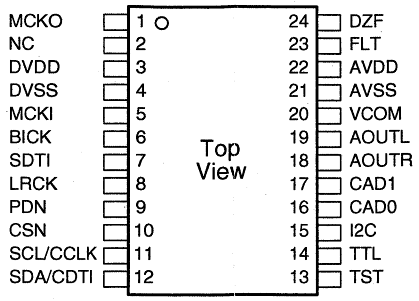

VCOM 1
AINR 2
AINL 3
VSS 4
VDD 5
DEM0 6
DEM1 7
SDTO 8
Top View
16 AOUTR
15 AOUTL
14 PWDA
13 PWAD
12 SCLK
11 MCLK
10 LRCK
9 SDTI

Pin Description

No.	Pin Name	I/O	Function
1	VCOM	O	Common Voltage Output Pin, 0.45 x VDD
2	AINR	I	Rch Analog Input Pin
3	AINL	I	Lch Analog Input Pin
4	VSS	-	Ground Pin
5	VDD	-	Power Supply Pin
6	DEM0	I	De-emphasis Control Pin
7	DEM1	I	De-emphasis Control Pin
8	SDTO	O	Audio Serial Data Output Pin
9	SDTI	I	Audio Serial Data Input Pin
10	LRCK	I	L/R Channel Clock Pin
11	MCLK	I	Master Clock Input Pin
12	SCLK	I	Audio Serial Data Clock Pin
13	PWAD	I	ADC Power-Down & Reset Mode Pin "L":Power down. ADC should always be reset upon power-up.
14	PWDA	I	DAC Power-Down & Reset Mode Pin "L":Power down. DAC should always be reset upon power-up.
15	AOUTL	O	Lch Analog Output Pin
16	AOUTR	O	Rch Analog Output Pin

■ AK4363VF-X [ASAHI KASEI]
(Stereo CMOS D/A Converter and Phase Locked Loop)

Pin Layout

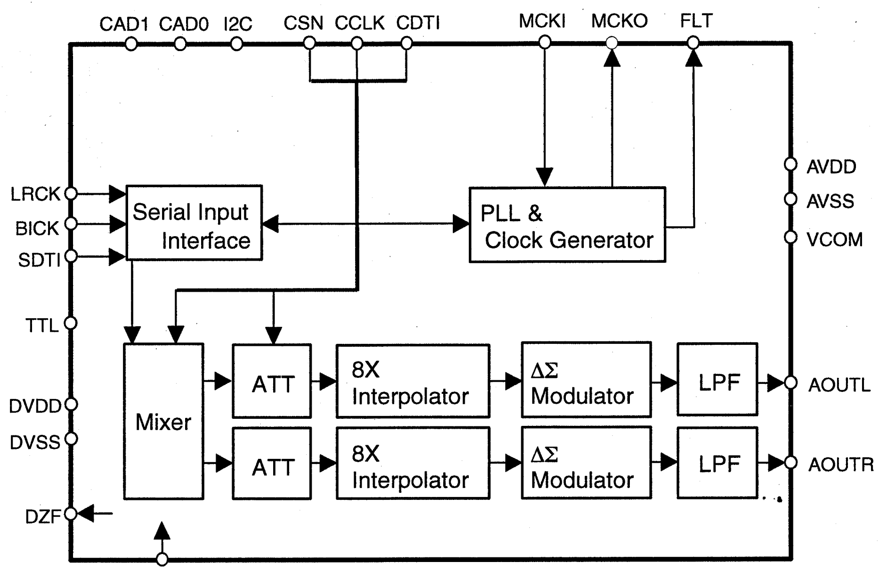

MCKO 1
NC 2
DVDD 3
DVSS 4
MCKI 5
BICK 6
SDTI 7
LRCK 8
PDN 9
CSN 10
SCL/CCLK 11
SDA/CDTI 12
Top View
24 DZF
23 FLT
22 AVDD
21 AVSS
20 VCOM
19 AOUTL
18 AOUTR
17 CAD1
16 CAD0
15 I2C
14 TTL
13 TST

Pin/Function

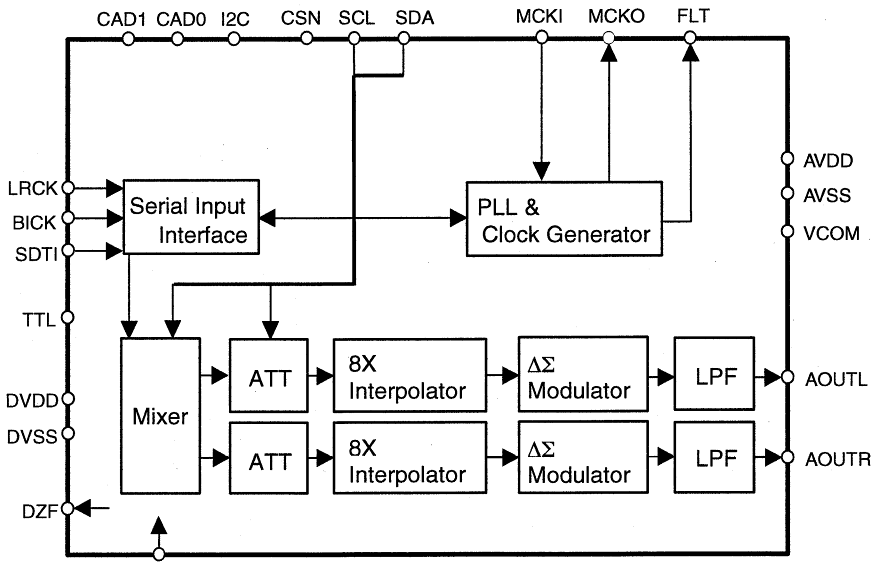
No.	Pin Name	I/O	Description
1	MCKO	O	Master Clock Output Pin EXT = "0" : System clock is output from PLL circuit (PLL mode), EXT = "1" : Same frequency as MCKI is output (External mode)
2	NC	-	No Connect Nothing should be connected externally to this pin.
3	DVDD	-	Digital Power Supply Pin, +2.7– +5.5V
4	DVSS	-	Digital Ground Pin, 0V
5	MCKI	I	System Clock Input Pin EXT = "0" : 27MHz (PLL mode), EXT = "1" : Other frequency (External mode)
6	BICK	I	Serial Data Clock Pin
7	SDTI	I	Serial Data Input Pin
8	LRCK	I	Serial Input Channel Clock Pin
9	PDN	I	Power-Down Pin When "L", the circuit is in power-down mode. The AK4363 should always be reset upon power-up.
10	CSN	I	Chip Select Pin at 3-wire Serial control mode This pin should be connected to DVDD at I^2C Bus control mode.
11	SCL	I	Control Clock Pin at I^2C bus control mode
	CCLK	I	Control Clock Pin at 3-wire serial control mode
12	SDA	I/O	Control Data Input/Output Pin at I^2C Bus control mode
	CDTI	I	Control Data Input Pin at 3-wire serial control mode
13	TST	I	Test pin This pin should be connected to DVSS.
14	TTL	I	Digital Input Level Select Pin "L" : CMOS, "H" : TTL
15	I2C	I	Control Mode Select Pin "L" : 3-wire Serial, "H" : I^2C Bus
16	CAD0	I	Chip Address Select 0 Pin
17	CAD1	I	Chip Address Select 1 Pin
18	AOUTR	O	Rch Analog Output Pin
19	AOUTL	O	Lch Analog Output Pin
20	VCOM	O	Common Voltage Output Pin, AVDD/2 Used for analog common voltage. Large external capacitor is used to reduce power supply noise.
21	AVSS	-	Analog Ground Pin
22	AVDD	-	Analog Power Supply Pin
23	FLT	O	Output Pin for Loop Filter of PLL Circuit This pin should be connected to AVSS with one resister and one capacitor in series. (See"SYSTEM DESIGN".)
24	DZF	O	Zero Input Detect Pin When SDTI follows a total 8192 LRCK cycles with "0" input data or RSTN = "0", this pin goes to "H".

Note: No input pins should be left floating.

Block Diagram

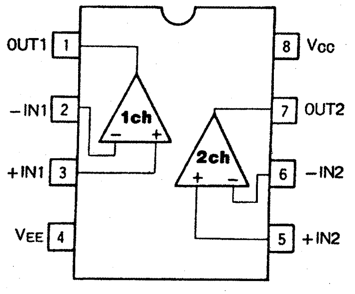

CAD1
CAD0
I2C
CSN
CCLK
CDTI
MCKI
MCKO
FLT
LRCK
BICK
SDTI
Serial Input Interface
PLL & Clock Generator
AVDD
AVSS
VCOM
TTL
DVDD
DVSS
Mixer
ATT
ATT
8X Interpolator
8X Interpolator
ΔΣ Modulator
ΔΣ Modulator
LPF
LPF
AOUTL
AOUTR
DZF
PDN

3-wire Serial Control Mode (I2C = "L")


CAD1
CAD0
I2C
CSN
SCL
SDA
MCKI
MCKO
FLT
LRCK
BICK
SDTI
Serial Input Interface
PLL & Clock Generator
AVDD
AVSS
VCOM
TTL
DVDD
DVSS
Mixer
ATT
ATT
8X Interpolator
8X Interpolator
ΔΣ Modulator
ΔΣ Modulator
LPF
LPF
AOUTL
AOUTR
DZF
PDN

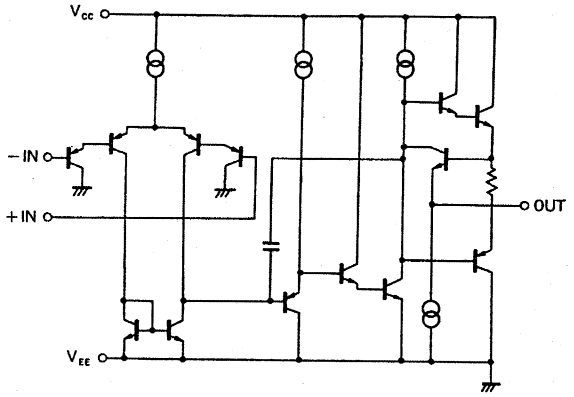
I^2C Bus Control Mode (I2C = "H")

■ BA10358F-XE [ROHM]
(Dual Ground Sense Op.Amp)



OUT1 1
−IN1 2
+IN1 3
VEE 4
8 Vcc
7 OUT2
6 −IN2
5 +IN2
1ch
2ch

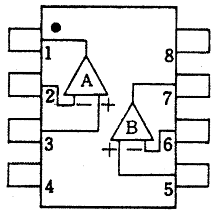
(Top View)



Vcc
−IN
+IN
OUT
VEE

■ BA10393F-XE [ROHM]
(Dual Comparator)

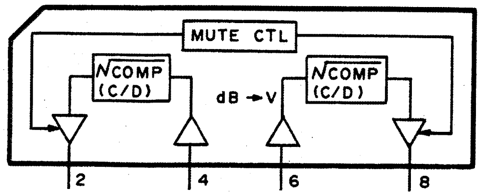
(Top View)



1
2
3
4
5
6
7
8
A
B

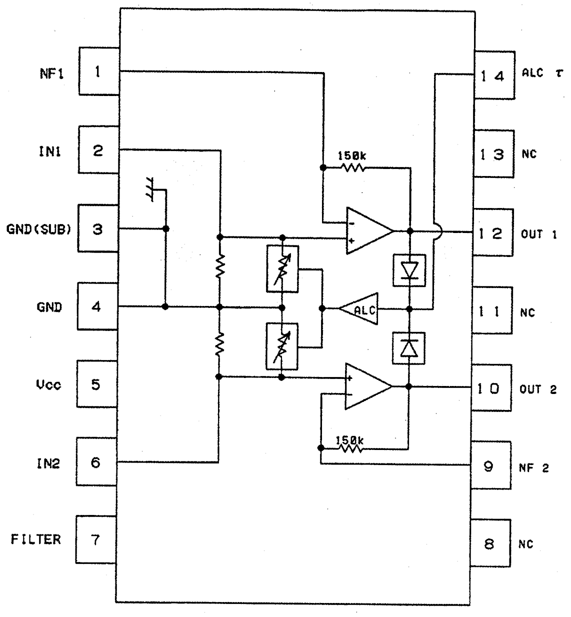
Pin
1. A OUTPUT
2. A−INPUT
3. A+INPUT
4. V⁻
5. B+INPUT
6. B−INPUT
7. B OUTPUT
8. V⁺

■ BA6138F-X [ROHM]
(1/2 square-law compression amplifiers)



MUTE CTL
√COMP (C/D)
dB → V
√COMP (C/D)
2
4
6
8

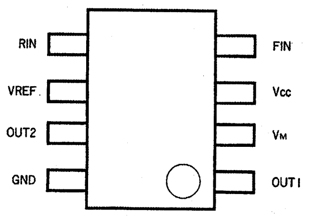
■ BA3314F-X [ROHM]
(Dual Pre-Amp. for Audio Signal)



NF1 1
IN1 2
GND(SUB) 3
GND 4
Vcc 5
IN2 6
FILTER 7
14 ALC τ
13 NC
12 OUT 1
11 NC
10 OUT 2
9 NF 2
8 NC
158k
158k
ALC

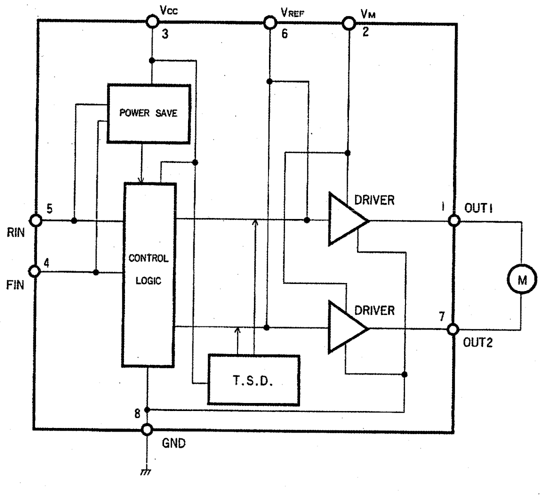
(Top View)

■ BA6417F-X [ROHM]
(Reversible Motor Driver)



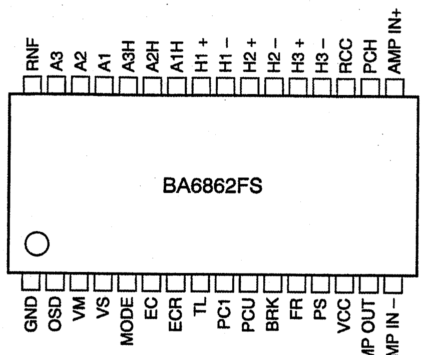
RIN
VREF
OUT2
GND
FIN
Vcc
VM
OUTI

Top view



Vcc 3
VREF 6
VM 2
POWER SAVE
CONTROL LOGIC
T.S.D.
DRIVER
DRIVER
5 RIN
4 FIN
1 OUT1
7 OUT2
M
8 GND

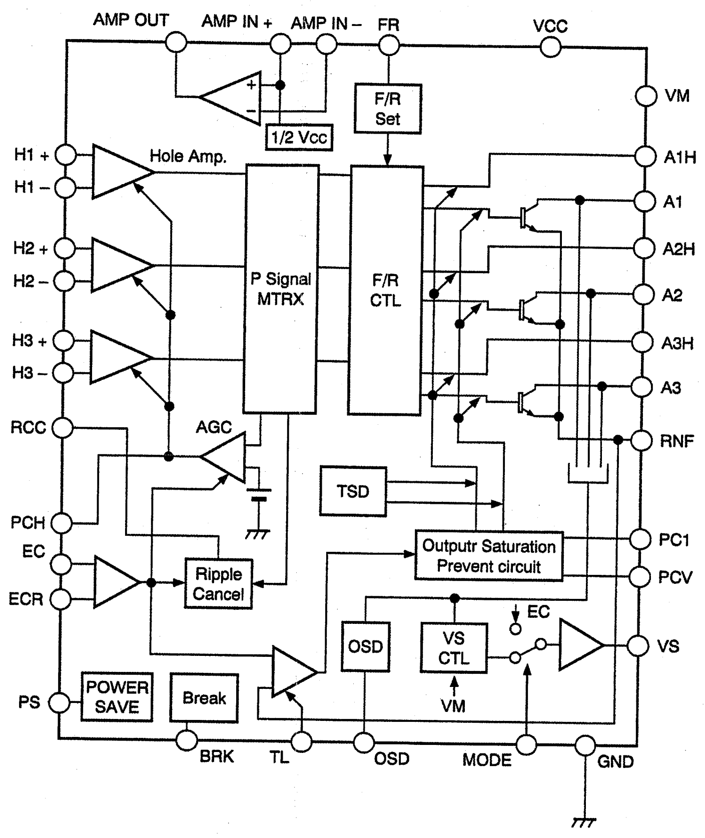
■ BA6862FS-X [ROHM]
(Motor Driver)



RNF
A3
A2
A1
A3H
A2H
A1H
H1 +
H1 −
H2 +
H2 −
H3 +
H3 −
RCC
PCH
AMP IN+
BA6862FS
GND
OSD
VM
VS
MODE
EC
ECR
TL
PC1
PCU
BRK
FR
PS
VCC
AMP OUT
AMP IN −

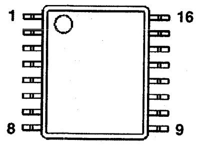
(TOP VIEW)

Pin No.	Symbol	Function
1	GND	GND
2	OSD	Output detect for short circuit
3	VM	Power source for motor drive
4	VS	Control for motor drive
5	MODE	Current/Voltage switching
6	EC	Torque control
7	ECR	Torque reference
8	TL	Torque limited
9	PCI	Output saturation prevent level (low level)
10	PCV	Output saturation prevent level (high level)
11	BRK	Break input H : Break L : Movement
12	FR	Foward/Reverse CTL input
13	PS	Power save H : Stand-by L : Movement
14	VCC	
15	AMP OUT	Amplifire output
16	AMP IN –	Amplifire input (–)
17	AMP IN +	Amplifire input (+)
18	PCH	Hole amp, AGC phase compareter
19	RCC	Ripple cancel
20	H3 –	Hole signal input
21	H3 +	Hole signal input
22	H2 –	Hole signal input
23	H2 +	Hole signal input
24	H1 –	Hole signal input
25	H1 +	Hole signal input
26	A1H	Pre motor drive output
27	A2H	Pre motor drive output
28	A3H	Pre motor drive output
29	A1	Motor drive output
30	A2	Motor drive output
31	A3	Motor drive output
32	RNF	GND for motor drive



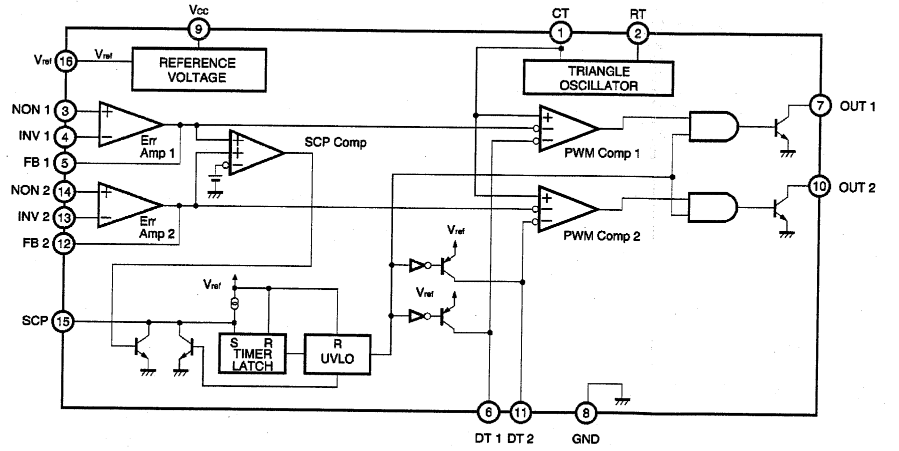
AMP OUT
AMP IN +
AMP IN −
FR
VCC
VM
1/2 Vcc
F/R Set
Hole Amp.
H1 +
H1 −
H2 +
H2 −
H3 +
H3 −
P Signal MTRX
F/R CTL
A1H
A1
A2H
A2
A3H
A3
RNF
RCC
AGC
TSD
PCH
EC
ECR
Ripple Cancel
Outputr Saturation Prevent circuit
PC1
PCV
EC
OSD
VS CTL
VM
VS
PS
POWER SAVE
Break
BRK
TL
OSD
MODE
GND

■ BA9743AFV-X [ROHM]
(2-channel Switching Regulator Controller)



(Top View)

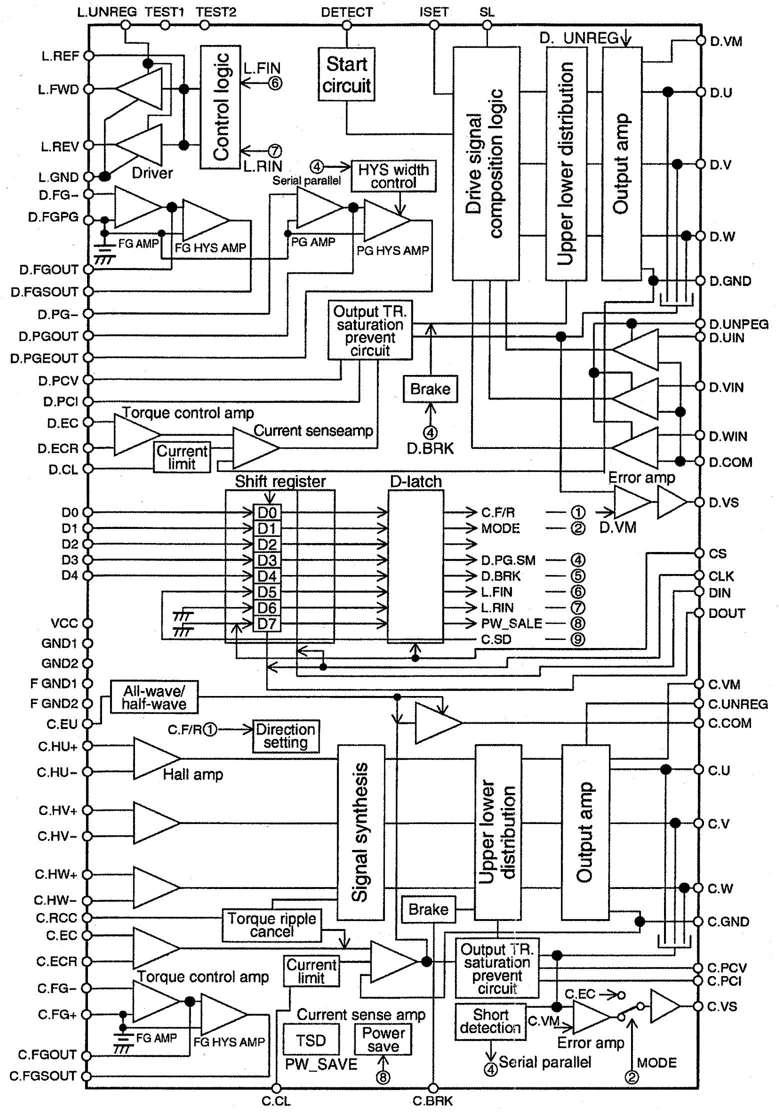
Block Diagram



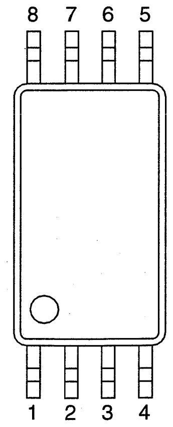
Vcc 9
CT 1
RT 2
Vref 16
REFERENCE VOLTAGE
TRIANGLE OSCILLATOR
NON 1 3
INV 1 4
FB 1 5
NON 2 14
INV 2 13
FB 2 12
Err Amp 1
Err Amp 2
SCP Comp
PWM Comp 1
PWM Comp 2
7 OUT 1
10 OUT 2
SCP 15
S R TIMER LATCH
R UVLO
Vref
6 DT 1
11 DT 2
8 GND

4-45

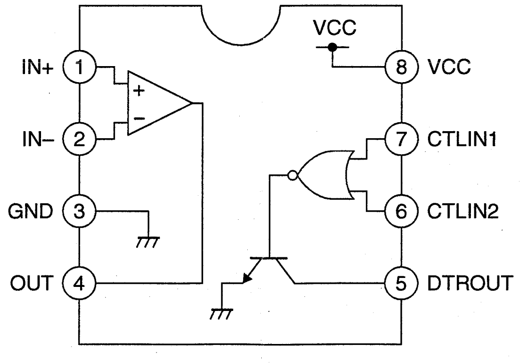
■ BA6865KV [ROHM]
(Motor Driver Controller)


L.UNREG TEST1 TEST2
DETECT
ISET
SL
D. UNREG
L.REF
L.FWD
L.REV
L.GND
D.FG–
D.FGPG
Driver
Control logic
L.FIN ⑥
L.RIN ⑦
Start circuit
HYS width control
Serial parallel
FG AMP
FG HYS AMP
PG AMP
PG HYS AMP
Drive signal composition logic
Upper lower distribution
Output amp
D.VM
D.U
D.V
D.W
D.GND
D.UNPEG
D.UIN
D.VIN
D.WIN
D.COM
D.VS
D.FGOUT
D.FGSOUT
D.PG–
D.PGOUT
D.PGEOUT
D.PCV
D.PCI
D.EC
D.ECR
D.CL
Output TR. saturation prevent circuit
Brake
D.BRK
Torque control amp
Current senseamp
Current limit
Error amp
Shift register
D-latch
D0
D1
D2
D3
D4
D5
D6
D7
C.F/R ①
MODE ②
D.PG.SM ④
D.BRK ⑤
L.FIN ⑥
L.RIN ⑦
PW_SALE ⑧
C.SD ⑨
D.VM
CS
CLK
DIN
DOUT
VCC
GND1
GND2
F GND1
F GND2
All-wave/ half-wave
C.EU
C.HU+
C.HU–
Hall amp
C.F/R①
Direction setting
C.HV+
C.HV–
C.HW+
C.HW–
C.RCC
C.EC
C.ECR
C.FG–
C.FG+
C.FGOUT
C.FGSOUT
Signal synthesis
Upper lower distribution
Output amp
Torque ripple cancel
Brake
Current limit
Torque control amp
FG AMP
FG HYS AMP
Current sense amp
TSD
PW_SAVE
Power save
⑧
Output TR. saturation prevent circuit
Short detection
C.VM
C.EC
Error amp
④Serial parallel
MODE ②
C.VM
C.UNREG
C.COM
C.U
C.V
C.W
C.GND
C.PCV
C.PCI
C.VS
C.CL
C.BRK

■ JCY0136-X [ROHM]
(High frequency operational amplifier for DVC)

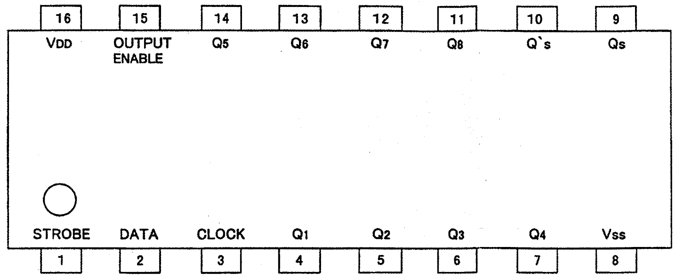


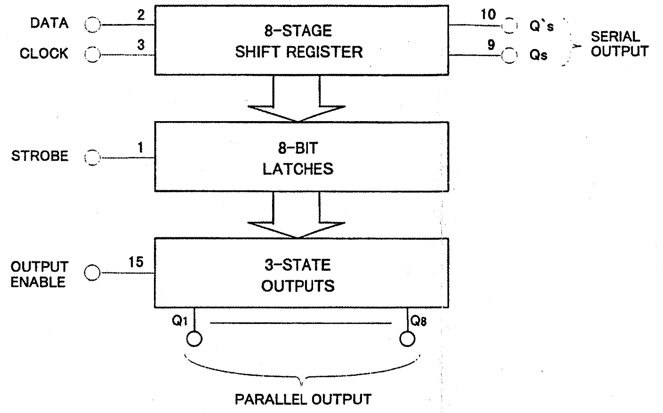
Block diagram


VCC
IN+ 1
IN– 2
GND 3
OUT 4
8 VCC
7 CTLIN1
6 CTLIN2
5 DTROUT

■ BU4094BCFV-X [ROHM]
(8-Stage Shift/Store Register)

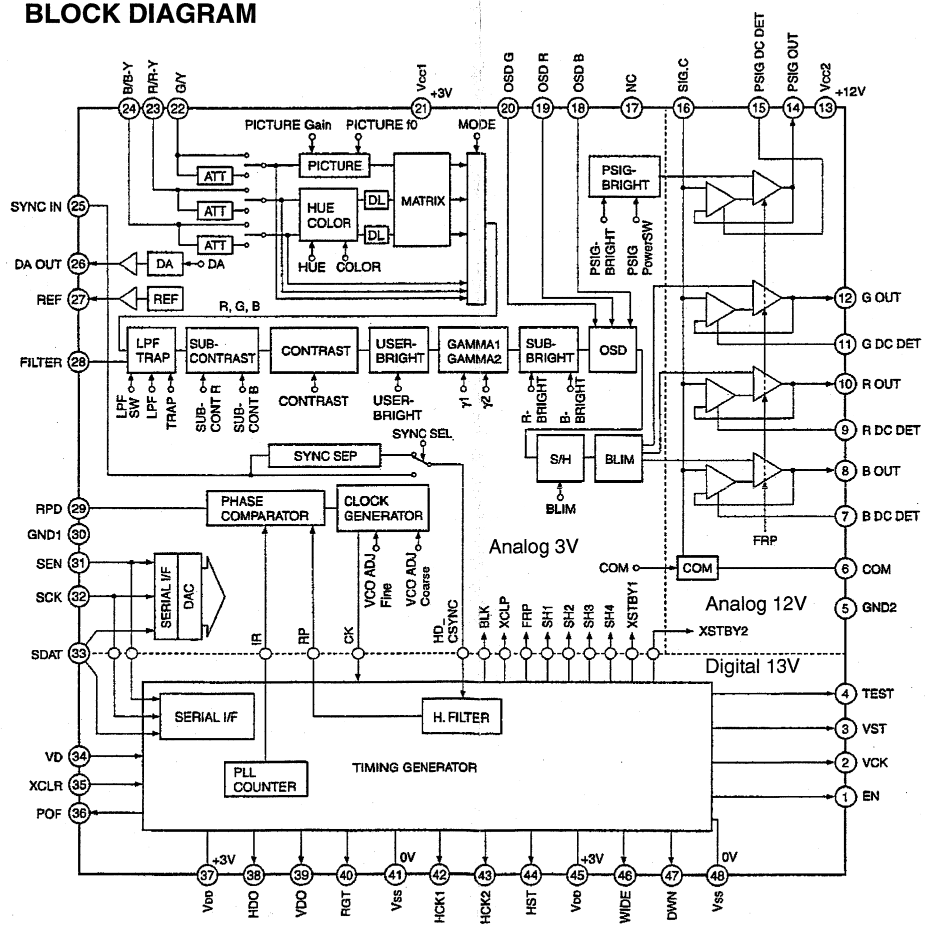
(Top View)


16 15 14 13 12 11 10 9
VDD
OUTPUT ENABLE
Q5
Q6
Q7
Q8
Q`s
Qs
STROBE
DATA
CLOCK
Q1
Q2
Q3
Q4
Vss
1 2 3 4 5 6 7 8

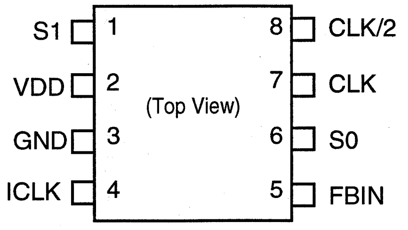

DATA 2
CLOCK 3
8-STAGE SHIFT REGISTER
10 Q`s
9 Qs
SERIAL OUTPUT
STROBE 1
8-BIT LATCHES
OUTPUT ENABLE 15
3-STATE OUTPUTS
Q1
Q8
PARALLEL OUTPUT

■ CXA3582R [SONY]
(Color LCD driver/Timing generator)

BLOCK DIAGRAM


B/B-Y
R/R-Y
G/Y
Vcc1
+3V
OSD G
OSD R
OSD B
NC
SIG.C
PSIG DC DET
PSIG OUT
Vcc2
+12V
PICTURE Gain
PICTURE f0
MODE
SYNC IN
DA OUT
REF
FILTER
ATT
PICTURE
HUE COLOR
DL
MATRIX
PSIG-BRIGHT
PSIG PowerSW
DA
HUE COLOR
R, G, B
LPF TRAP
SUB-CONTRAST
CONTRAST
USER-BRIGHT
GAMMA1 GAMMA2
SUB-BRIGHT
OSD
LPF SW
LPF f0
TRAP
SUB-CONT R
SUB-CONT B
CONTRAST
USER-BRIGHT
γ1
γ2
R-BRIGHT
B-BRIGHT
SYNC SEP
SYNC SEL
S/H
BLIM
BLIM
FRP
G OUT
G DC DET
R OUT
R DC DET
B OUT
B DC DET
COM
GND2
RPD
GND1
SEN
SCK
SDAT
PHASE COMPARATOR
CLOCK GENERATOR
SERIAL I/F
DAC
VCO ADJ Fine
VCO ADJ Coarse
Analog 3V
Analog 12V
Digital 13V
XSTBY2
IR
RP
CK
HD_CSYNC
BLK
XCLP
FRP
SH1
SH2
SH3
SH4
XSTBY1
SERIAL I/F
H. FILTER
PLL COUNTER
TIMING GENERATOR
VD
XCLR
POF
TEST
VST
VCK
EN
+3V
0V
+3V
0V
VDD
HDO
VDO
RGT
Vss
HCK1
HCK2
HST
VDD
WIDE
DWN
Vss
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48

■ ICS570B-X [ICS]
(Multiplier and Zero Delay Buffer)

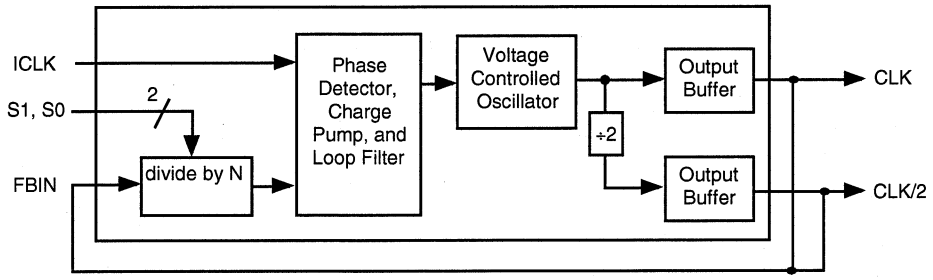

S1 1
VDD 2
GND 3
ICLK 4
(Top View)
8 CLK/2
7 CLK
6 S0
5 FBIN

Pin Descriptions

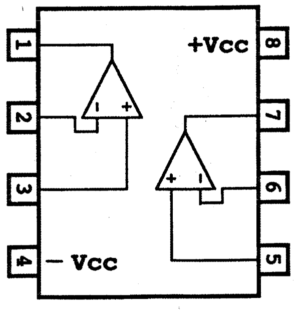
Number	Name	Type	Description
1	S1	I	Select 1 for output clock. Connect to GND, VDD, or float per decoding table above.
2	VDD	P	Connect to +3.3V.
3	GND	P	Connect to ground.
4	ICLK	CI	Reference clock input.
5	FBIN	CI	Feedback clock input.
6	S0	I	Select 0 for output clock. Connect to GND, VDD, or float per decoding table above.
7	CLK	O	Clock output per table above.
8	CLK/2	O	Clock output per table above. Low skew divide by two of pin 7 clock.

Key: CI = clock input, I = input, O = output, P = power supply connection

Block Diagram

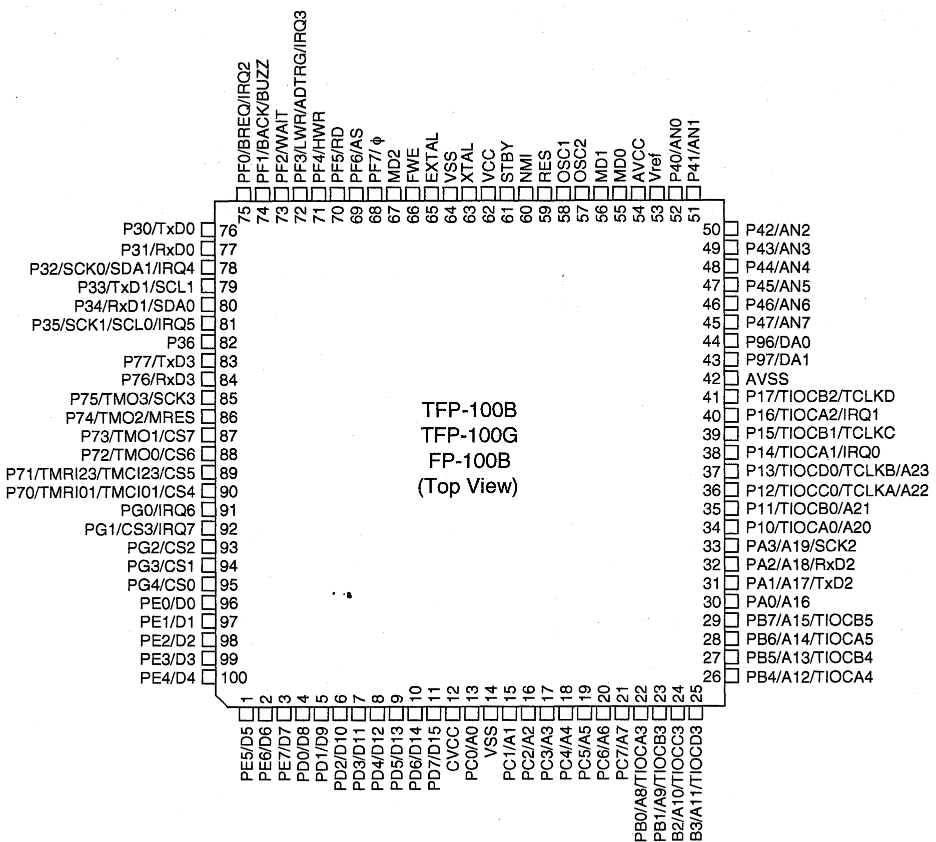

ICLK
S1, S0
2
FBIN
divide by N
Phase Detector, Charge Pump, and Loop Filter
Voltage Controlled Oscillator
÷2
Output Buffer
Output Buffer
CLK
CLK/2

■ M5216FP-X [MITSUBISHI]
(Dual Op Amp.)

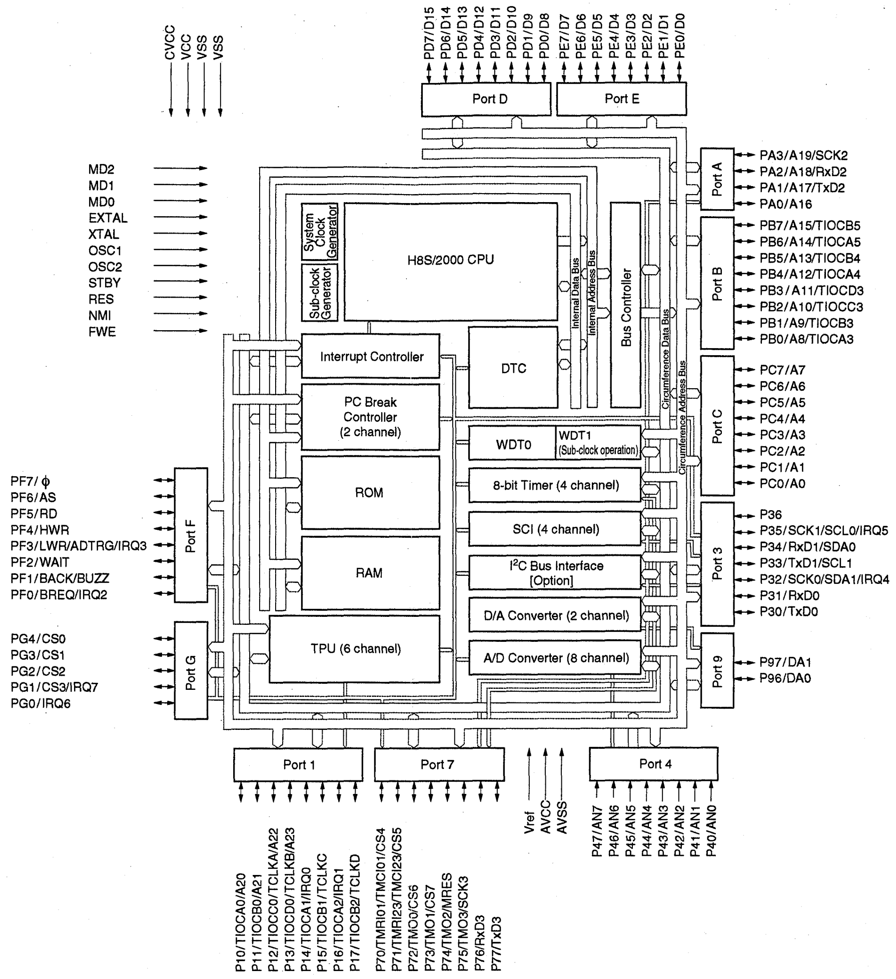

1
2
3
4
+Vcc
– Vcc
8
7
6
5

(TOP VIEW)

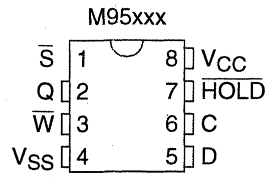
■ HD64F2238RFA13 [HITACHI]
(16-Bit Single Chip Micro Computer)


PF0/BREQ/IRQ2 75
PF1/BACK/BUZZ 74
PF2/WAIT 73
PF3/LWR/ADTRG/IRQ3 72
PF4/HWR 71
PF5/RD 70
PF6/AS 69
PF7/ϕ 68
MD2 67
FWE 66
EXTAL 65
VSS 64
XTAL 63
VCC 62
STBY 61
NMI 60
RES 59
OSC1 58
OSC2 57
MD1 56
MD0 55
AVCC 54
Vref 53
P40/AN0 52
P41/AN1 51
P30/TxD0 76
P31/RxD0 77
P32/SCK0/SDA1/IRQ4 78
P33/TxD1/SCL1 79
P34/RxD1/SDA0 80
P35/SCK1/SCL0/IRQ5 81
P36 82
P77/TxD3 83
P76/RxD3 84
P75/TMO3/SCK3 85
P74/TMO2/MRES 86
P73/TMO1/CS7 87
P72/TMO0/CS6 88
P71/TMRI23/TMCI23/CS5 89
P70/TMRI01/TMCI01/CS4 90
PG0/IRQ6 91
PG1/CS3/IRQ7 92
PG2/CS2 93
PG3/CS1 94
PG4/CS0 95
PE0/D0 96
PE1/D1 97
PE2/D2 98
PE3/D3 99
PE4/D4 100
50 P42/AN2
49 P43/AN3
48 P44/AN4
47 P45/AN5
46 P46/AN6
45 P47/AN7
44 P96/DA0
43 P97/DA1
42 AVSS
41 P17/TIOCB2/TCLKD
40 P16/TIOCA2/IRQ1
39 P15/TIOCB1/TCLKC
38 P14/TIOCA1/IRQ0
37 P13/TIOCD0/TCLKB/A23
36 P12/TIOCC0/TCLKA/A22
35 P11/TIOCB0/A21
34 P10/TIOCA0/A20
33 PA3/A19/SCK2
32 PA2/A18/RxD2
31 PA1/A17/TxD2
30 PA0/A16
29 PB7/A15/TIOCB5
28 PB6/A14/TIOCA5
27 PB5/A13/TIOCB4
26 PB4/A12/TIOCA4
1 PE5/D5
2 PE6/D6
3 PE7/D7
4 PD0/D8
5 PD1/D9
6 PD2/D10
7 PD3/D11
8 PD4/D12
9 PD5/D13
10 PD6/D14
11 PD7/D15
12 CVCC
13 PC0/A0
14 VSS
15 PC1/A1
16 PC2/A2
17 PC3/A3
18 PC4/A4
19 PC5/A5
20 PC6/A6
21 PC7/A7
22 PB0/A8/TIOCA3
23 PB1/A9/TIOCB3
24 PB2/A10/TIOCC3
25 PB3/A11/TIOCD3
TFP-100B
TFP-100G
FP-100B
(Top View)

Block diagram


CVCC
VCC
VSS
VSS
PD7/D15
PD6/D14
PD5/D13
PD4/D12
PD3/D11
PD2/D10
PD1/D9
PD0/D8
PE7/D7
PE6/D6
PE5/D5
PE4/D4
PE3/D3
PE2/D2
PE1/D1
PE0/D0
Port D
Port E
MD2
MD1
MD0
EXTAL
XTAL
OSC1
OSC2
STBY
RES
NMI
FWE
System Clock Generator
Sub-clock Generator
H8S/2000 CPU
Internal Data Bus
Internal Address Bus
Bus Controller
Peripheral Data Bus
Peripheral Address Bus
Interrupt Controller
DTC
PC Break Controller (2 channel)
WDT0
WDT1 (Sub-clock operation)
ROM
8-bit Timer (4 channel)
SCI (4 channel)
RAM
I²C Bus Interface [Option]
D/A Converter (2 channel)
TPU (6 channel)
A/D Converter (8 channel)
Port A
PA3/A19/SCK2
PA2/A18/RxD2
PA1/A17/TxD2
PA0/A16
Port B
PB7/A15/TIOCB5
PB6/A14/TIOCA5
PB5/A13/TIOCB4
PB4/A12/TIOCA4
PB3/A11/TIOCD3
PB2/A10/TIOCC3
PB1/A9/TIOCB3
PB0/A8/TIOCA3
Port C
PC7/A7
PC6/A6
PC5/A5
PC4/A4
PC3/A3
PC2/A2
PC1/A1
PC0/A0
Port 3
P36
P35/SCK1/SCL0/IRQ5
P34/RxD1/SDA0
P33/TxD1/SCL1
P32/SCK0/SDA1/IRQ4
P31/RxD0
P30/TxD0
Port 9
P97/DA1
P96/DA0
Port F
PF7/ϕ
PF6/AS
PF5/RD
PF4/HWR
PF3/LWR/ADTRG/IRQ3
PF2/WAIT
PF1/BACK/BUZZ
PF0/BREQ/IRQ2
Port G
PG4/CS0
PG3/CS1
PG2/CS2
PG1/CS3/IRQ7
PG0/IRQ6
Port 1
Port 7
Port 4
P10/TIOCA0/A20
P11/TIOCB0/A21
P12/TIOCC0/TCLKA/A22
P13/TIOCD0/TCLKB/A23
P14/TIOCA1/IRQ0
P15/TIOCB1/TCLKC
P16/TIOCA2/IRQ1
P17/TIOCB2/TCLKD
P70/TMRI01/TMCI01/CS4
P71/TMRI23/TMCI23/CS5
P72/TMO0/CS6
P73/TMO1/CS7
P74/TMO2/MRES
P75/TMO3/SCK3
P76/RxD3
P77/TxD3
Vref
AVCC
AVSS
P47/AN7
P46/AN6
P45/AN5
P44/AN4
P43/AN3
P42/AN2
P41/AN1
P40/AN0

■ M95320-WMN6-X [ST MICROELECTRONICS]
(64/32 Kbit Serial SPI Bus EEPROM)

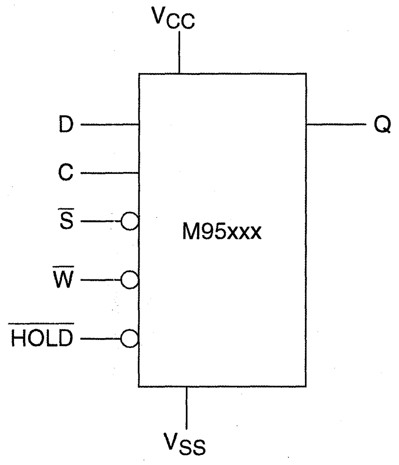

M95xxx
S̄ 1
Q 2
W̄ 3
VSS 4
8 VCC
7 HOLD
6 C
5 D

(Top View)

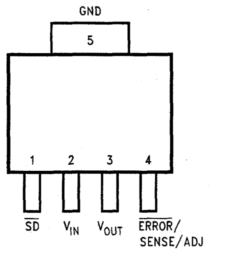
Signal Names

C	Serial Clock
D	Serial Data Input
Q	Serial Data Output
S̄	Chip Select
W̄	Write Protect
HOLD	Hold
V_{CC}	Supply Voltage
V_{SS}	Ground

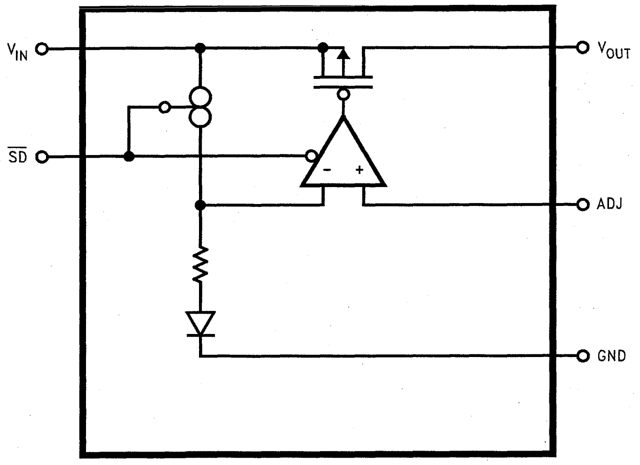
Logic Diagram


VCC
D
C
S̄
W̄
HOLD
M95xxx
Q
VSS

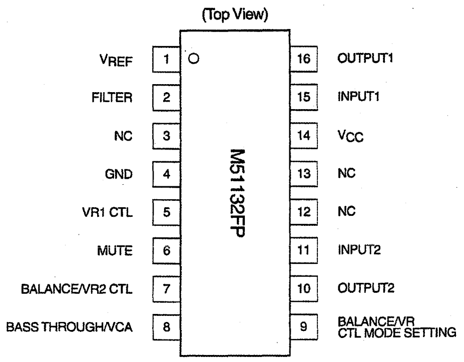
■ LP3965EMP-ADJ-X [NATIONAL SEMICONDUCTOR]
(1.5A Fast Ultra Low Dropout Linear Regulators)

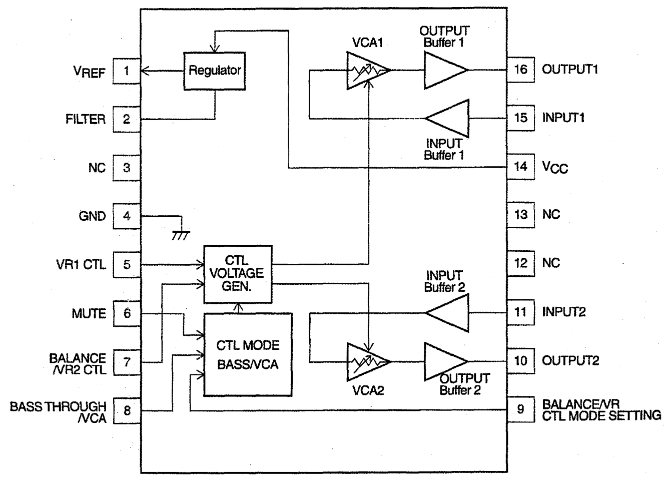

GND
5
1
2
3
4
SD
VIN
VOUT
ERROR/SENSE/ADJ

(Top View)


VIN
VOUT
SD
ADJ
GND

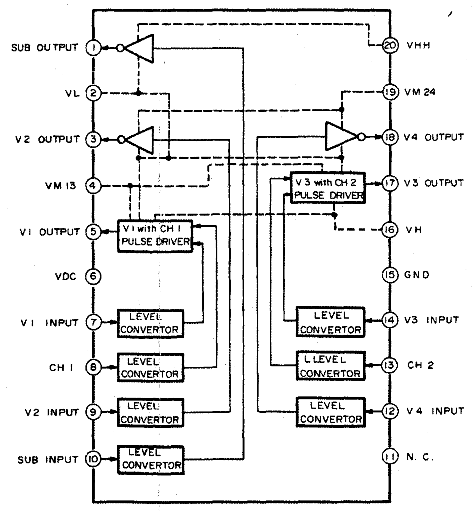
■ M51132FP-X [MITSUBISHI]
(2 Channel Electrical VR/Balance for Audio Level)


(Top View)
VREF 1
FILTER 2
NC 3
GND 4
VR1 CTL 5
MUTE 6
BALANCE/VR2 CTL 7
BASS THROUGH/VCA 8
16 OUTPUT1
15 INPUT1
14 VCC
13 NC
12 NC
11 INPUT2
10 OUTPUT2
9 BALANCE/VR CTL MODE SETTING
M51132FP


VREF 1
FILTER 2
NC 3
GND 4
VR1 CTL 5
MUTE 6
BALANCE /VR2 CTL 7
BASS THROUGH /VCA 8
Regulator
VCA1
OUTPUT Buffer 1
INPUT Buffer 1
CTL VOLTAGE GEN.
CTL MODE BASS/VCA
INPUT Buffer 2
VCA2
OUTPUT Buffer 2
16 OUTPUT1
15 INPUT1
14 VCC
13 NC
12 NC
11 INPUT2
10 OUTPUT2
9 BALANCE/VR CTL MODE SETTING

NC : NOT CONNECT

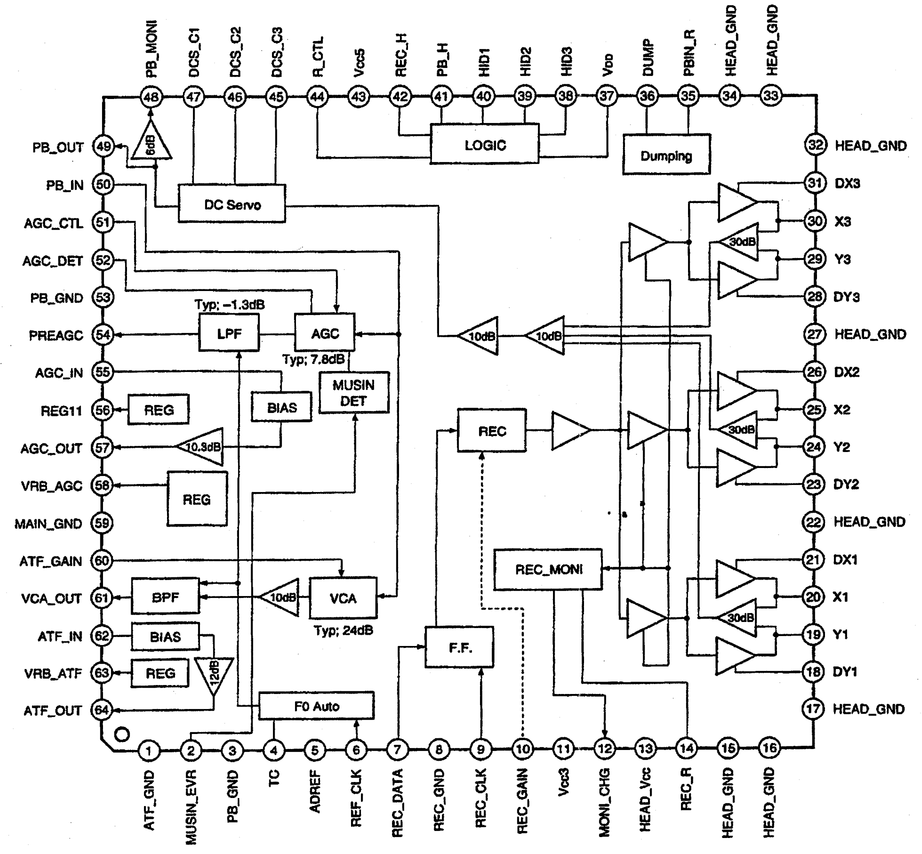
■ MN3112SA-X [MATSUSHITA]
(Vertical Driver)


SUB OUTPUT 1
VL 2
V2 OUTPUT 3
VM 13 4
V1 OUTPUT 5
VDC 6
V1 INPUT 7
CH 1 8
V2 INPUT 9
SUB INPUT 10
20 VHH
19 VM 24
18 V4 OUTPUT
17 V3 OUTPUT
16 VH
15 GND
14 V3 INPUT
13 CH 2
12 V4 INPUT
11 N.C.
V1 with CH 1 PULSE DRIVER
V3 with CH 2 PULSE DRIVER
LEVEL CONVERTOR

4-47

■ JCY0132 [SONY]
(REC/PLAY amplifier for digital VCR)

Block diagram

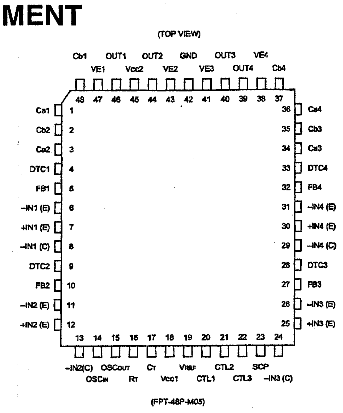

PB_MONI
DCS_C1
DCS_C2
DCS_C3
R_CTL
Vcc5
REC_H
PB_H
HID1
HID2
HID3
VDD
DUMP
PBIN_R
HEAD_GND
HEAD_GND
PB_OUT
PB_IN
AGC_CTL
AGC_DET
PB_GND
PREAGC
AGC_IN
REG11
AGC_OUT
VRB_AGC
MAIN_GND
ATF_GAIN
VCA_OUT
ATF_IN
VRB_ATF
ATF_OUT
6dB
DC Servo
LOGIC
Dumping
Typ; -1.3dB
LPF
AGC
Typ; 7.8dB
BIAS
MUSIN DET
REG
10.3dB
REG
BPF
10dB
VCA
Typ; 24dB
BIAS
REG
12dB
F0 Auto
F.F.
REC
REC_MONI
10dB
10dB
30dB
30dB
30dB
HEAD_GND
DX3
X3
Y3
DY3
HEAD_GND
DX2
X2
Y2
DY2
HEAD_GND
DX1
X1
Y1
DY1
HEAD_GND
ATF_GND
MUSIN_EVR
PB_GND
TC
ADREF
REF_CLK
REC_DATA
REC_GND
REC_CLK
REC_GAIN
Vcc3
MONI_CHG
HEAD_Vcc
REC_R
HEAD_GND
HEAD_GND

Pin description

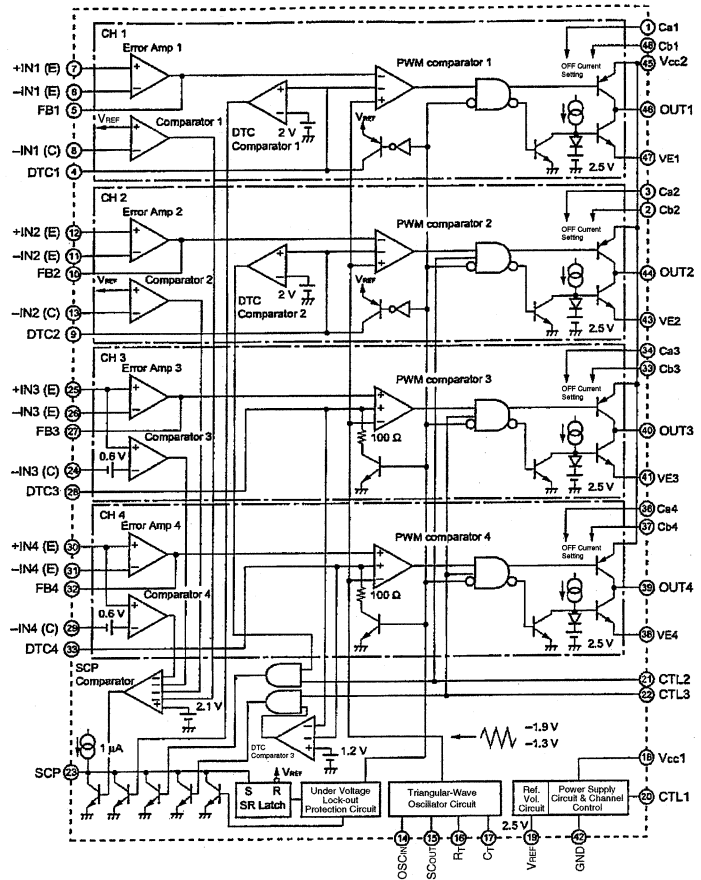
Pin No.	Pin name	Description
1	ATF_GND	Ground terminal
2	MUSIN_EVR	EVR terminal for non-signal detection level adjustment of AGC circuit
3	PB_GND	Ground terminal
4	TC	Time constant terminal for F0 auto PLL circuit
5	ADREF	ADREF power supply terminal ADREF
6	REF_CLK	Reference clock input terminal for F0 auto PLL
7	REC_DATA	REC DATA input terminal
8	REC_GND	Ground terminal
9	REC_CLK	REC CLOCK input terminal
10	REC_GAIN	Adjusting terminal for recoding current
11	Vcc3	Vcc3 power supply terminal
12	MONI_CHG	Monitor terminal for recording current output level : REC mode, Quick charge pulse input terminal of TC terminal : PB mode
13	HEAD_Vcc	Power supply terminal of R/P amplifier section
14	REC_R	External resistor connecting terminal for recording current output level monitor
15	HEAD_GND	Ground terminal
16	HEAD_GND	Ground terminal
17	HEAD_GND	Ground terminal
18	DY1	Damping resistor connecting terminal
19	Y1	HEAD terminal
20	X1	HEAD terminal
21	DX1	Damping resistor connecting terminal
22	HEAD_GND	Ground terminal
23	DY2	Damping resistor connecting terminal
24	Y2	HEAD terminal
25	X2	HEAD terminal
26	DX2	Damping resistor connecting terminal
27	HEAD_GND	Ground terminal
28	DY3	Damping resistor connecting terminal
29	Y3	HEAD terminal
30	X3	HEAD terminal
31	DX3	Damping resistor connecting terminal
32	HEAD_GND	Ground terminal
33	HEAD_GND	Ground terminal
34	HEAD_GND	Ground terminal
35	PBIN_R	External resistor connecting terminal for playback reference current
36	DUMP	HEAD resonance control terminal at playback mode
37	VDD	VDD power supply terminal
38	HID3	Mode control terminal, channel select of playback amplifier and control of recording current measurement circuit
39	HID2	Mode control terminal, channel select of recording/playback amplifier
40	HID1	Mode control terminal, channel select of recording/playback amplifier
41	PB_H	Mode control terminal, ON/OFF of playback circuit
42	REC_H	Mode control terminal, ON/OFF of recording circuit
43	Vcc5	Vcc5 power supply terminal
44	R_CTL	Mode control terminal, ON/OFF of recording current output
45	DCS_C3	Time constant terminal for DC servo circuit
46	DCS_C2	Time constant terminal for DC servo circuit
47	DCS_C1	Time constant terminal for DC servo circuit
48	PB_MONI	PB amplifier monitor terminal
49	PB_OUT	PB amplifier output terminal
50	PB_IN	PB MAIN/ATF input terminal
51	AGC_CTL	AGC control terminal for MAIN family
52	AGC_DET	Time constant terminal for MAIN family
53	PB_GND	Ground terminal
54	PREAGC	AGC+LPF output terminal for MAIN family
55	AGC_IN	10.3dB amplifier input terminalfor MAIN family
56	REG11	Regulator 1.1V output terminal
57	AGC_OUT	Output terminal for MAIN family
58	VRB_AGC	Bottom reference voltage output terminal for A/D converter of MAIN family
59	MAIN_GND	Ground terminal
60	ATF_GAIN	VCA control terminal for ATF family
61	VCA_OUT	VCA+BPF output terminal for ATF family
62	ATF_IN	12dB amplifier input terminal for ATF family
63	VRB_ATF	Bottom reference voltage output terminal for A/D converter of ATF family
64	ATF_OUT	Output terminal for ATF family

■ MB3785APFV [FUJITSU]
(4channel Switching Regulator Controller)

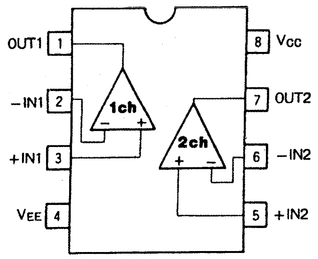
PIN ASSIGNMENT

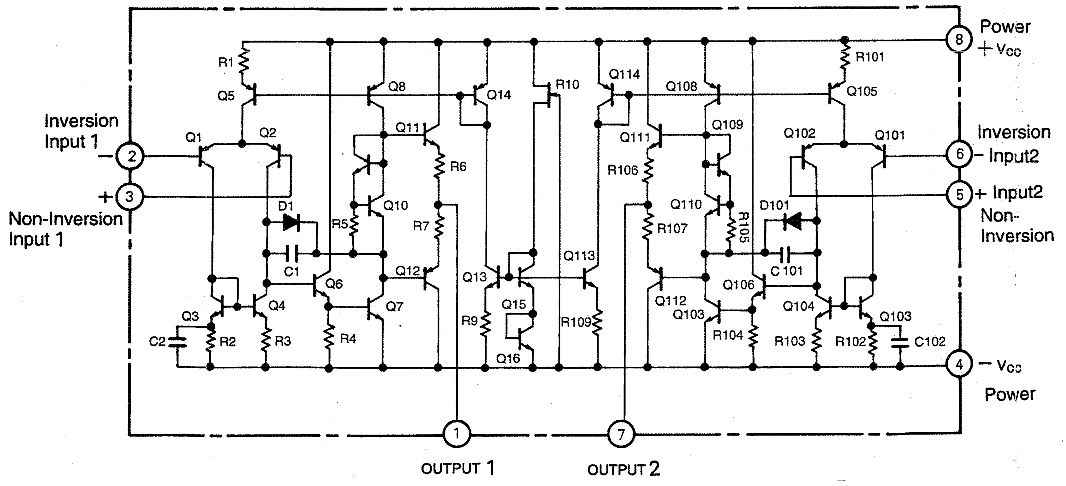

(TOP VIEW)
(FPT-48P-M05)

BLOCK DIAGRAM

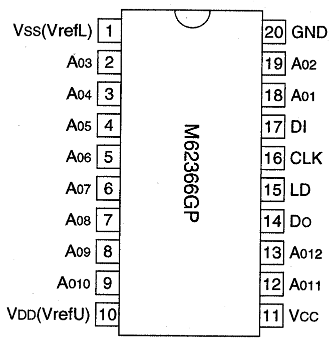

CH 1
Error Amp 1
PWM comparator 1
Comparator 1
DTC Comparator 1
+IN1 (E)
–IN1 (E)
FB1
–IN1 (C)
DTC1
Ca1
Cb1
Vcc2
OUT1
VE1
2.5 V
CH 2
Error Amp 2
PWM comparator 2
Comparator 2
DTC Comparator 2
+IN2 (E)
–IN2 (E)
FB2
–IN2 (C)
DTC2
Ca2
Cb2
OUT2
VE2
CH 3
Error Amp 3
PWM comparator 3
Comparator 3
+IN3 (E)
–IN3 (E)
FB3
–IN3 (C)
DTC3
0.6 V
100 Ω
Ca3
Cb3
OUT3
VE3
CH 4
Error Amp 4
PWM comparator 4
Comparator 4
+IN4 (E)
–IN4 (E)
FB4
–IN4 (C)
DTC4
Ca4
Cb4
OUT4
VE4
SCP Comparator
2.1 V
1 µA
SCP
1.2 V
–1.9 V
–1.3 V
S R SR Latch
Under Voltage Lock-out Protection Circuit
Triangular-Wave Oscillator Circuit
Ref. Vol. Circuit
Power Supply Circuit & Channel Control
CTL2
CTL3
Vcc1
CTL1
2.5 V
OSCIN
OSCOUT
RT
CT
VREF
GND

■ M5218AFP-X [MITSUBISHI]
(Dual Op.Amp.)


OUT1
–IN1
+IN1
VEE
Vcc
OUT2
–IN2
+IN2
1ch
2ch


Inversion Input 1
Non-Inversion Input 1
Power +Vcc
Inversion – Input2
+ Input2 Non-Inversion
– Vcc Power
OUTPUT 1
OUTPUT 2
R1
Q5
Q1
Q2
D1
C1
Q3
Q4
C2
R2
R3
R4
R5
Q6
Q7
Q8
Q11
Q10
Q12
R6
R7
Q14
Q13
Q15
Q16
R9
R10
Q113
R109
Q114
Q108
Q111
R106
Q110
R107
Q109
R105
Q112
Q103
Q106
R104
D101
C101
Q102
Q101
Q104
Q103
R103
R102
C102
R101
Q105

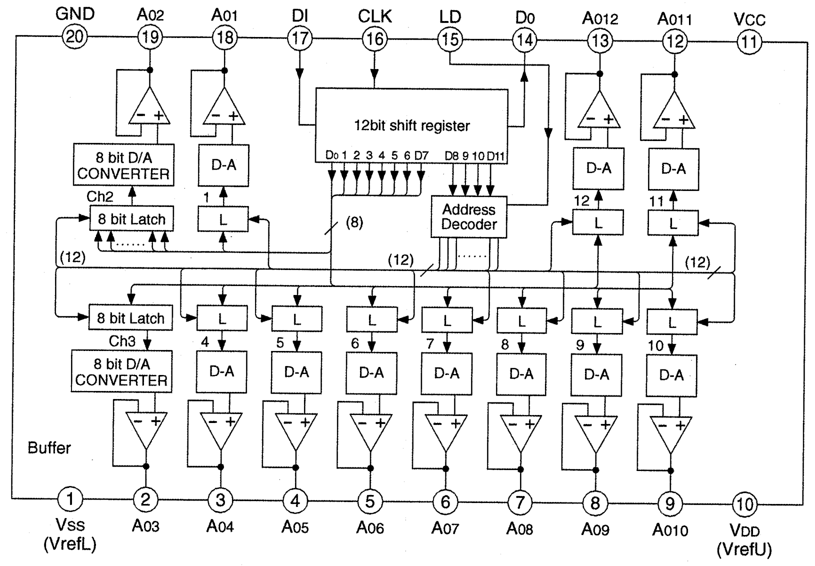
■ M62366GP-X [MITSUBISHI]
(8bit 12channel D/A converter)


Vss(VrefL) 1
A03 2
A04 3
A05 4
A06 5
A07 6
A08 7
A09 8
A010 9
VDD(VrefU) 10
20 GND
19 A02
18 A01
17 DI
16 CLK
15 LD
14 Do
13 A012
12 A011
11 Vcc
M62366GP

(TOP VIEW)

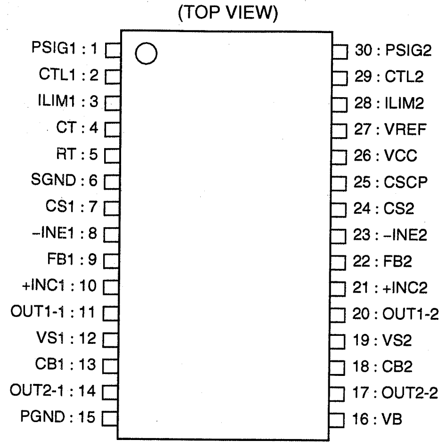
Pin No.	Symbol	Function
⑰	DI	Serial data input terminal to input 12-bit long serial data
⑭	Do	Terminal to output MSB data of 12-bit shift register
⑯	CLK	Shift clock input terminal.Input signal at DI pin is input to 12-bit shift register at rise of shift clock pulse
⑮	LD	When H-level signal is input to this terminal,the value stored in 12-bit shift register is loaded in decoder and D-A converter output register
⑱ ⑲ ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑫ ⑬	A01 A02 A03 A04 A05 A06 A07 A08 A09 A010 A011 A012	8-bit D-A converter output terminal
⑪	VCC	Power supply terminal
⑳	GND	GND terminal
⑩	VDD	D-A converter upper reference voltage input terminal
①	Vss	D-A converter lower reference voltage input terminal

Block Diagram

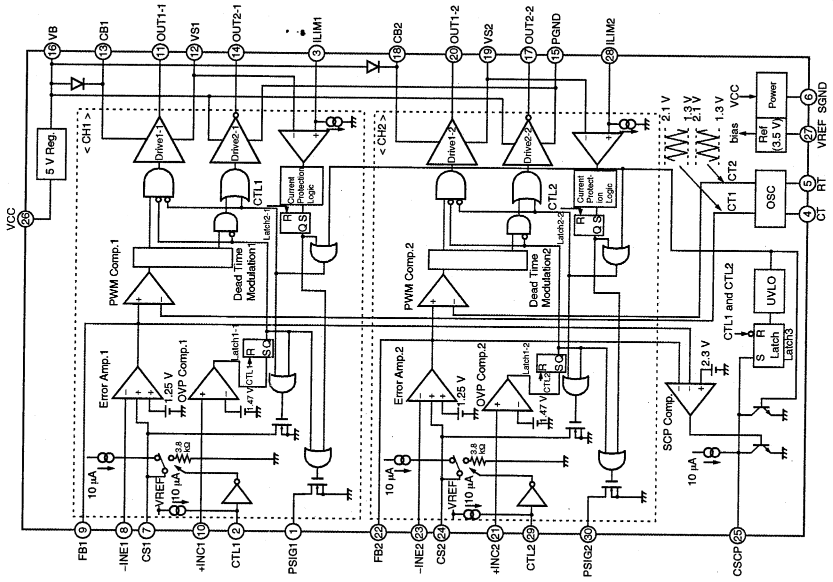

GND
A02
A01
DI
CLK
LD
Do
A012
A011
VCC
12bit shift register
8 bit D/A CONVERTER
Ch2
8 bit Latch
D-A
L
Address Decoder
(8)
(12)
8 bit Latch
Ch3
8 bit D/A CONVERTER
Buffer
Vss (VrefL)
A03
A04
A05
A06
A07
A08
A09
A010
VDD (VrefU)

■ MB3886PFV [FUJITSU]
(2-Channel DC/DC converter)

(TOP VIEW)


PSIG1 : 1
CTL1 : 2
ILIM1 : 3
CT : 4
RT : 5
SGND : 6
CS1 : 7
–INE1 : 8
FB1 : 9
+INC1 : 10
OUT1-1 : 11
VS1 : 12
CB1 : 13
OUT2-1 : 14
PGND : 15
30 : PSIG2
29 : CTL2
28 : ILIM2
27 : VREF
26 : VCC
25 : CSCP
24 : CS2
23 : –INE2
22 : FB2
21 : +INC2
20 : OUT1-2
19 : VS2
18 : CB2
17 : OUT2-2
16 : VB

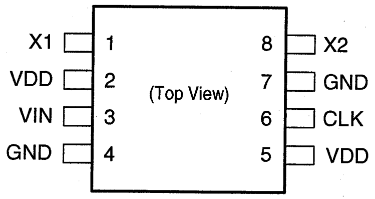
Block Diagram


VB
CB1
OUT1-1
VS1
OUT2-1
ILIM1
CB2
OUT1-2
VS2
OUT2-2
PGND
ILIM2
5 V Reg.
< CH1 >
< CH2 >
VCC
Drive1-1
Drive2-1
Drive1-2
Drive2-2
CTL1
CTL2
PWM Comp.1
PWM Comp.2
Dead Time Modulation1
Dead Time Modulation2
Error Amp.1
Error Amp.2
OVP Comp.1
OVP Comp.2
SCP Comp.
Power
Ref 3.5 V
bias
OSC
UVLO
CTL1 and CTL2
Latch3
VREF
SGND
RT
CT
FB1
–INE1
CS1
+INC1
CTL1
PSIG1
FB2
–INE2
CS2
+INC2
CTL2
PSIG2
CSCP

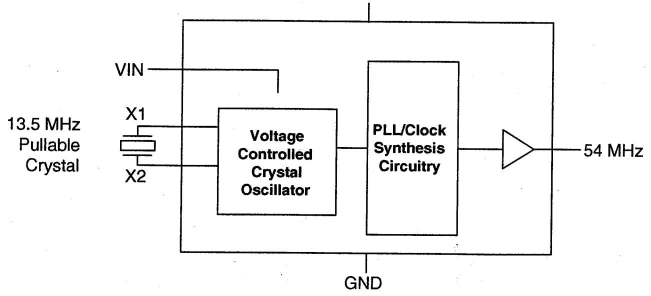
■ Pin description

Pin No.	Pin name	I/O	Description
1	PSIG1	O	CH1 protection status output terminal
2	CTL1	I	CH1 control terminal "H" level : CH1 ON state "L" level : CH1 OFF state and protection status reset
3	ILIM1	I	CH1 overcurrent detection resistor connection terminal
4	CT	—▯	Triangular waveform oscillation frequency setting capacitor connection terminal
5	RT	—▯	Triangular waveform oscillation frequency setting resistor connection terminal
6	SGND	—▯	Ground terminal
7	CS1	—▯	CH1 soft-start capacitor connection terminal
8	–INE1	I	CH1 error amp. inverting input terminal
9	FB1	O	CH1 error amp. output terminal
10	+INC1	I	CH1 overvoltage comparator noninverting input terminal
11	OUT1-1	O	CH1 totem-pole output terminal (External main-side FET gate drive)
12	VS1	—▯	CH1 external main-side FET source connection terminal
13	CB1	—▯	CH1 boot capacitor connection terminal Connect a capacitor between the CB1 and VS1 terminals.
14	OUT2-1	O	CH1 totem-pole output terminal (External synchronous-rectification-side FET gate drive)
15	PGND	—▯	Ground terminal
16	VB	O	Output circuit bias output terminal
17	OUT2-2	O	CH2 totem-pole output terminal (External synchronous-rectification-side FET gate drive)
18	CB2	—▯	CH2 boot capacitor connection terminal Connect a capacitor between the CB2 and VS2 terminals.
19	VS2	—▯	CH2 external main-side FET source connection terminal
20	OUT1-2	O	CH2 totem-pole output terminal (External main-side FET gate drive)
21	+INC2	—▯	CH2 overvoltage comparator noninverting input terminal
22	FB2	O	CH2 error amp. output terminal
23	–INE2	I	CH2 error amp. inverting input terminal
24	CS2	—▯	CH2 soft-start capacitor connection terminal
25	CSCP	—▯	Timer-latch short-circuit protection capacitor connection terminal
26	VCC	—▯	Reference voltage, control circuit power supply terminal
27	VREF	O	Reference voltage output terminal
28	ILIM2	I	CH2 overcurrent detection resistor connection terminal
29	CTL2	I	CH2 control terminal "H" level : CH2 ON state "L" level : CH2 OFF state and protection status reset
30	PSIG2	O	CH2 protection status output terminal

■ MK3754D-X [ICS]
(Low Cost 54MHz 3.3 Volt VCXO)


X1 1
VDD 2
VIN 3
GND 4
8 X2
7 GND
6 CLK
5 VDD
(Top View)

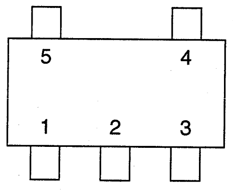
Pin Descriptions


VDD
VIN
X1
X2
13.5 MHz Pullable Crystal
Voltage Controlled Crystal Oscillator
PLL/Clock Synthesis Circuitry
54 MHz
GND

Block Diagram

Pin Number	Pin Name	Pin Type	Pin Description
1	XI	Input	Crystal connection. Connect to the external pullable crystal.
2	VDD	Power	Connect to +3.3 V (0.01uf decoupling capacitor recommended).
3	VIN	Input	Voltage input to VCXO -- 0 to 3.3 V analog input which controls the oscillation frequency of the VCXO.
4	GND	Power	Connect to ground.
5	VDD	Power	Connect to +3.3 V (0.01uf decoupling capacitor recommended).
6	CLK	Output	54 MHz clock output.
7	GND	Power	Connect to ground.
8	X2	Input	Crystal connection. Connect to the external pullable crystal.

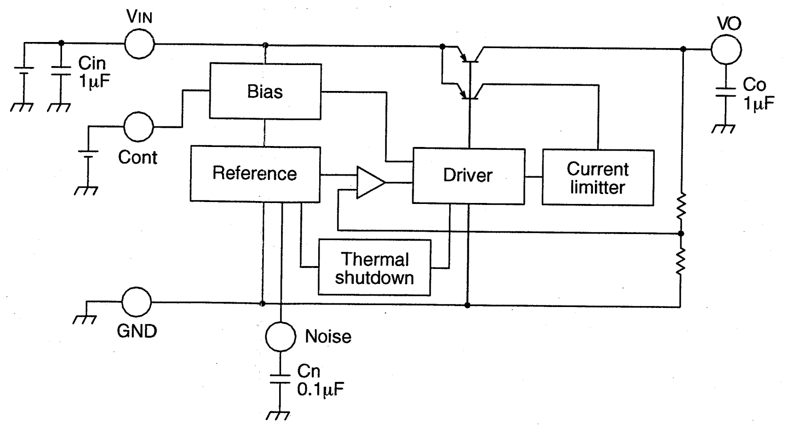
■ MM1571JN-X [MITSUMI]
(1.8V Regulator)



SOT-25A
(TOP VIEW)

1	VIN
2	GND
3	Cont
4	Noise
5	Vo

Block Diagram


VIN
VO
Cin 1μF
Co 1μF
Bias
Cont
Reference
Driver
Current limitter
Thermal shutdown
GND
Noise
Cn 0.1μF

■ MM1572FN-X [MITSUMI]
(Refer to MM1571JN-X.)

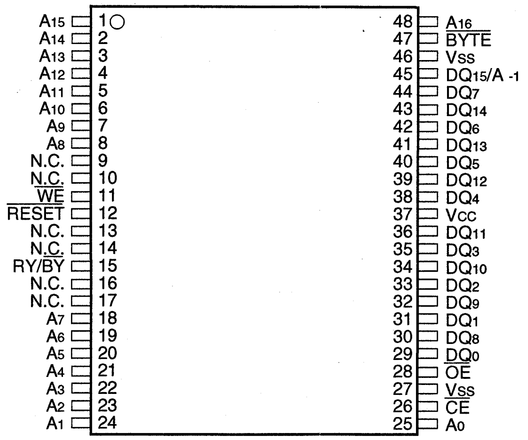
■ MM1572KN-X [MITSUMI]
(Refer to MM1571JN-X.)

■ MM1573AN-X [MITSUMI]
(Refer to MM1571JN-X.)

■ MM1573DN-X [MITSUMI]
(Refer to MM1571JN-X.)

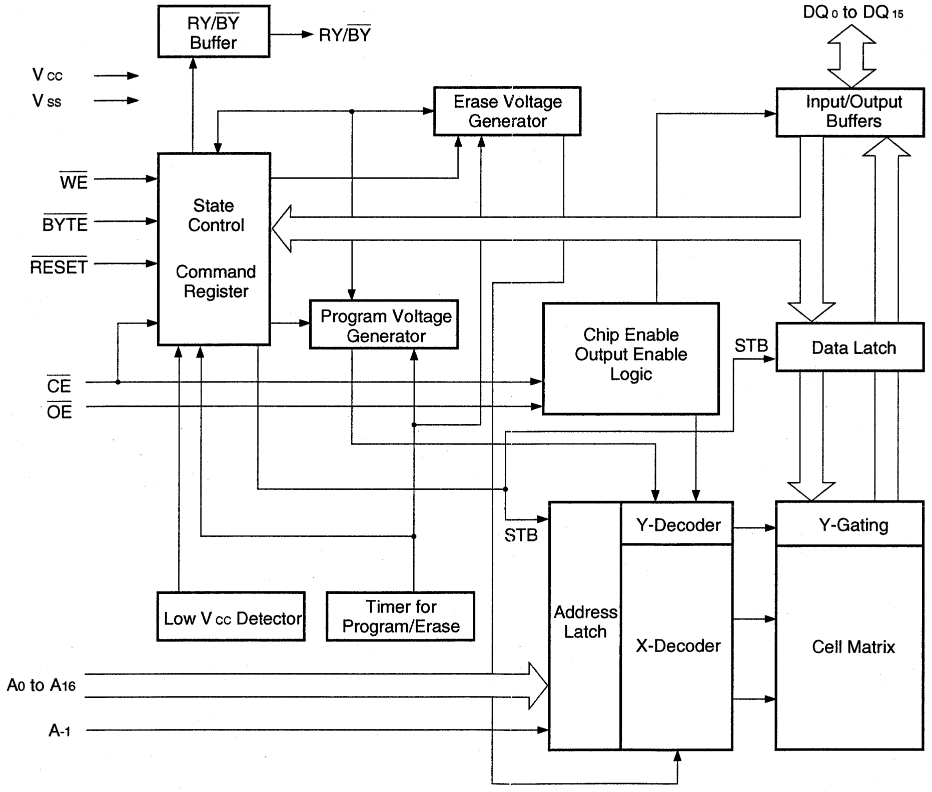
4-49

■ MBV200BC90PT [FUJITSU]
(2M Bit Flash Memory)

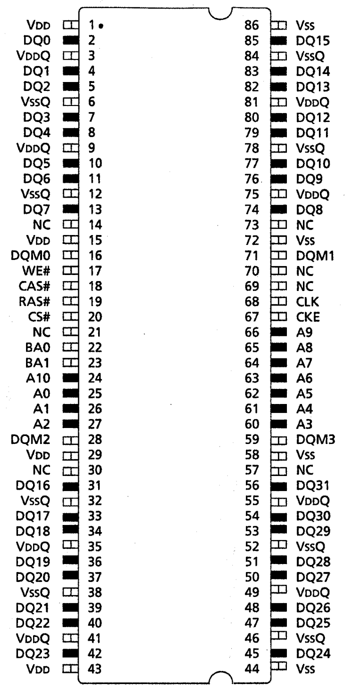

A15 1
A14 2
A13 3
A12 4
A11 5
A10 6
A9 7
A8 8
N.C. 9
N.C. 10
WE 11
RESET 12
N.C. 13
N.C. 14
RY/BY 15
N.C. 16
N.C. 17
A7 18
A6 19
A5 20
A4 21
A3 22
A2 23
A1 24
48 A16
47 BYTE
46 Vss
45 DQ15/A-1
44 DQ7
43 DQ14
42 DQ6
41 DQ13
40 DQ5
39 DQ12
38 DQ4
37 Vcc
36 DQ11
35 DQ3
34 DQ10
33 DQ2
32 DQ9
31 DQ1
30 DQ8
29 DQ0
28 OE
27 Vss
26 CE
25 A0

(TOP VIEW)

Pin	Function	Pin	Function
A-1, A0 – A16	Address Inputs	RY/BY	Ready/Busy Output
DQ0 – DQ15	Data Inputs/Outputs	BYTE	Selects 8-bit or 16-bit mode
CE	Chip Enable	Vss	Device Ground
OE	Output Enable	Vcc	Device Power Supply
WE	Write Enable	N.C.	No Internal Connection
RESET	Hardware Reset Pin/ Temporary Sector Unprotection	–	–


RY/BY Buffer
RY/BY
Vcc
Vss
Erase Voltage Generator
DQ0 to DQ15
Input/Output Buffers
WE
BYTE
RESET
State Control
Command Register
Program Voltage Generator
Chip Enable Output Enable Logic
STB
Data Latch
CE
OE
Y-Decoder
Y-Gating
STB
Address Latch
X-Decoder
Cell Matrix
Low Vcc Detector
Timer for Program/Erase
A0 to A16
A-1

■ MT48LC2M32B2-X [MICRON]
(64Mb (2Meg x 32) SDRAM)

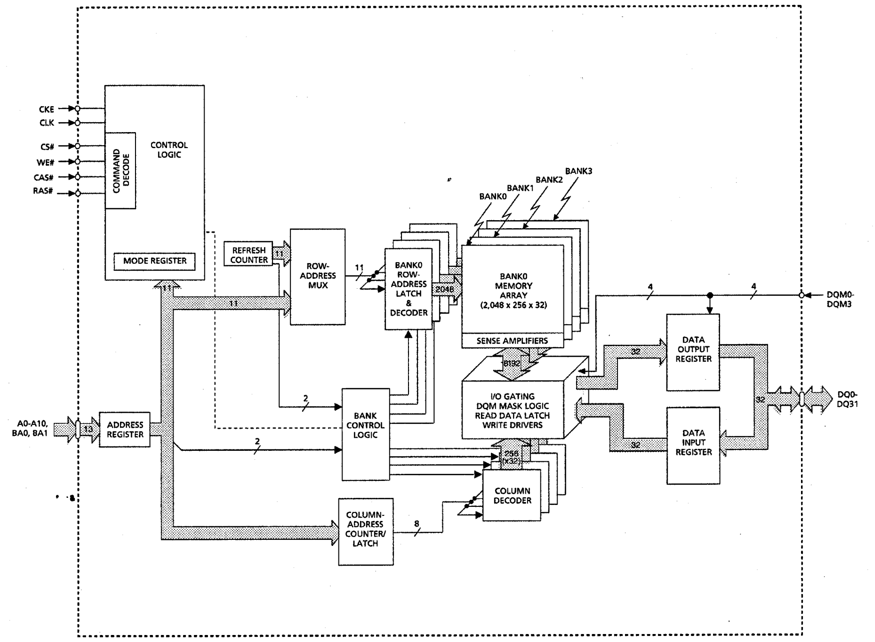

VDD 1
DQ0 2
VDDQ 3
DQ1 4
DQ2 5
VSSQ 6
DQ3 7
DQ4 8
VDDQ 9
DQ5 10
DQ6 11
VSSQ 12
DQ7 13
NC 14
VDD 15
DQM0 16
WE# 17
CAS# 18
RAS# 19
CS# 20
NC 21
BA0 22
BA1 23
A10 24
A0 25
A1 26
A2 27
DQM2 28
VDD 29
NC 30
DQ16 31
VSSQ 32
DQ17 33
DQ18 34
VDDQ 35
DQ19 36
DQ20 37
VSSQ 38
DQ21 39
DQ22 40
VDDQ 41
DQ23 42
VDD 43
86 VSS
85 DQ15
84 VSSQ
83 DQ14
82 DQ13
81 VDDQ
80 DQ12
79 DQ11
78 VSSQ
77 DQ10
76 DQ9
75 VDDQ
74 DQ8
73 NC
72 VSS
71 DQM1
70 NC
69 NC
68 CLK
67 CKE
66 A9
65 A8
64 A7
63 A6
62 A5
61 A4
60 A3
59 DQM3
58 VSS
57 NC
56 DQ31
55 VDDQ
54 DQ30
53 DQ29
52 VSSQ
51 DQ28
50 DQ27
49 VDDQ
48 DQ26
47 DQ25
46 VSSQ
45 DQ24
44 VSS

(Top View)

Note: The # symbol indicates signal is active LOW.

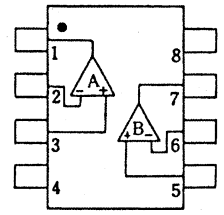
	2 Meg x 32
Configuration	512K x 32 x 4 banks
Refresh Count	4K
Row Addressing	2K (A0-A10)
Bank Addressing	4 (BA0, BA1)
Column Addressing	256 (A0-A7)

FUNCTIONAL BLOCK DIAGRAM
2 Meg x 32 SDRAM

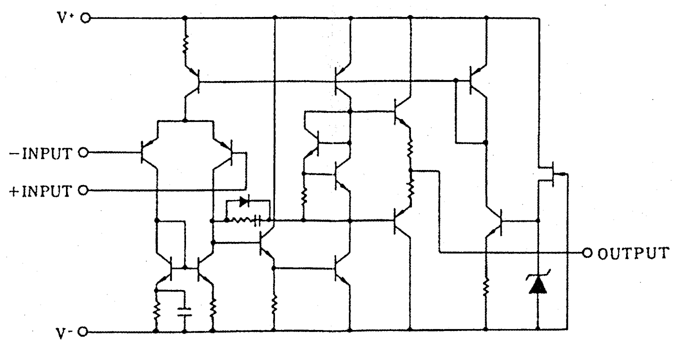

CKE
CLK
CS#
WE#
CAS#
RAS#
COMMAND DECODE
CONTROL LOGIC
MODE REGISTER
REFRESH COUNTER
11
ROW-ADDRESS MUX
11
BANK0 ROW-ADDRESS LATCH & DECODER
2048
BANK0
BANK1
BANK2
BANK3
BANK0 MEMORY ARRAY (2,048 x 256 x 32)
SENSE AMPLIFIERS
8192
I/O GATING DQM MASK LOGIC READ DATA LATCH WRITE DRIVERS
4
4
DQM0-DQM3
DATA OUTPUT REGISTER
32
32
DQ0-DQ31
DATA INPUT REGISTER
32
A0-A10, BA0, BA1
13
ADDRESS REGISTER
11
2
BANK CONTROL LOGIC
2
256 (x32)
COLUMN DECODER
COLUMN-ADDRESS COUNTER/ LATCH
8

■ NJM2068M-D-XE [JRC]
(Dual Low-Noise Op.Amp)

(Top View)

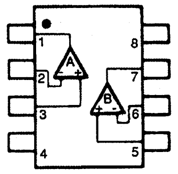

1
2
3
4
5
6
7
8
A
B

1. A OUTPUT
2. A–INPUT
3. A+INPUT
4. V⁻
5. B+INPUT
6. B–INPUT
7. B OUTPUT
8. V⁺


V⁺
–INPUT
+INPUT
OUTPUT
V⁻

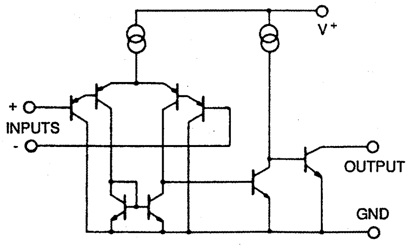
■ NJM2903M-XE [JRC]
(Dual Single Supply Comparator)

D, M Type
(Top View)


1
2
3
4
5
6
7
8
A
B

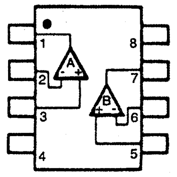
Pin Assignment

1. A OUTPUT
2. A–INPUT
3. A+INPUT
4. GND
5. B+INPUT
6. B–INPUT
7. B OUTPUT
8. V⁺


V⁺
+
INPUTS
-
OUTPUT
GND

■ NJM2904M-XE [JRC]
(Dual Op.Amp.)

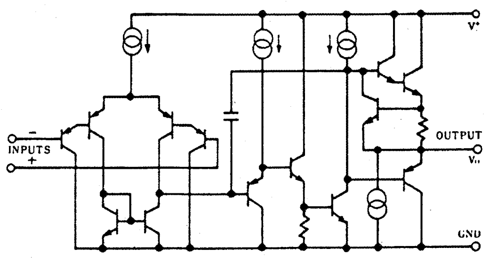
(Top View)


1
2
3
4
5
6
7
8
A
B

Pin Assignment

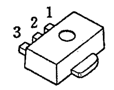
1. A OUTPUT
2. A–INPUT
3. A+INPUT
4. GND
5. B+INPUT
6. B–INPUT
7. B OUTPUT
8. V⁺

■ Equivalent Circuit (2 circuits in a chip)


V⁺
–
INPUTS
+
OUTPUT
V₀
GND

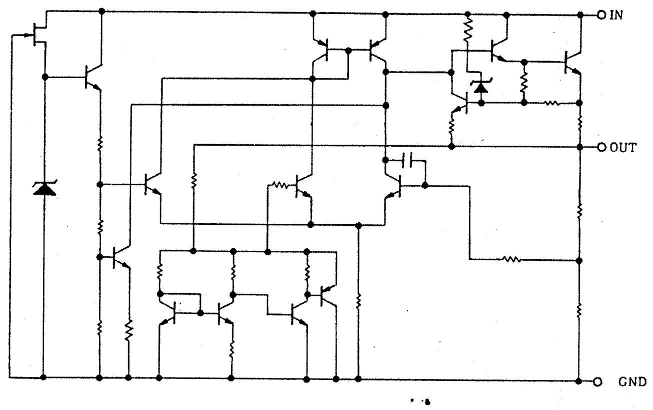
4-50

■ NJM78L12UA-X [JRC]
(3-Terminal Positive Voltage Regulator (+12V))

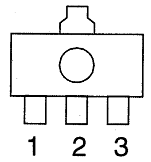


1. OUT
2. GND
3. IN

NJM78L00UA

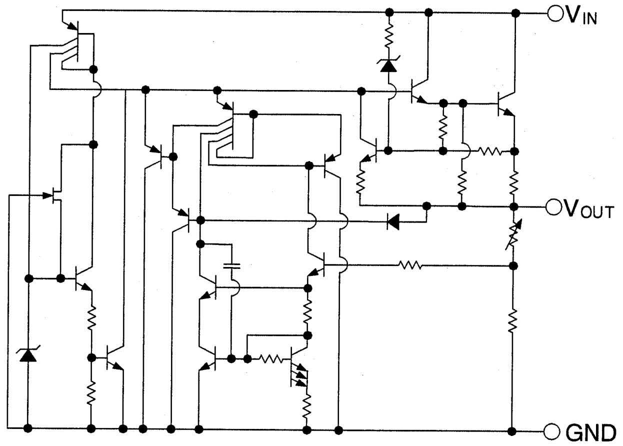


■ NJM78L03UA-X [JRC]
(3-Terminal Positive Voltage Regulator)

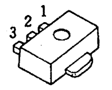


1.OUT
2.GND
3.IN

Block Diagram

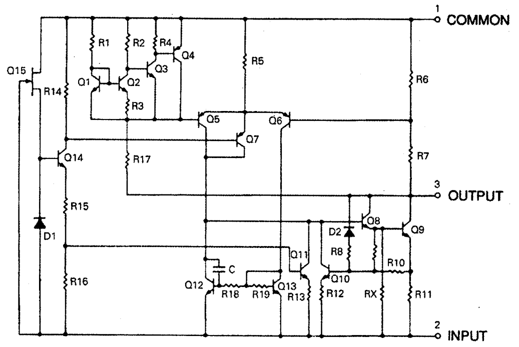

VIN
VOUT
GND

■ NJM79L05UA-X [JRC]
(3-Terminal Negative Voltage Regulator (-5V))



1. COMMON
2. IN
3. OUT

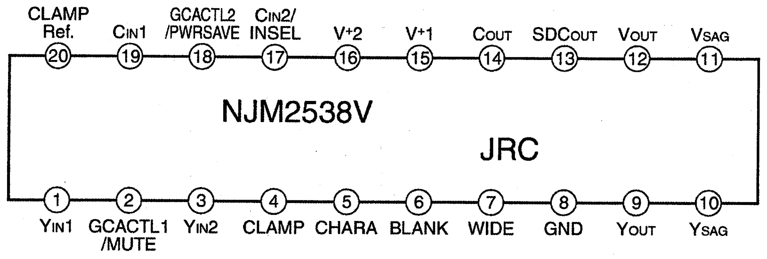
NJM79L00UA

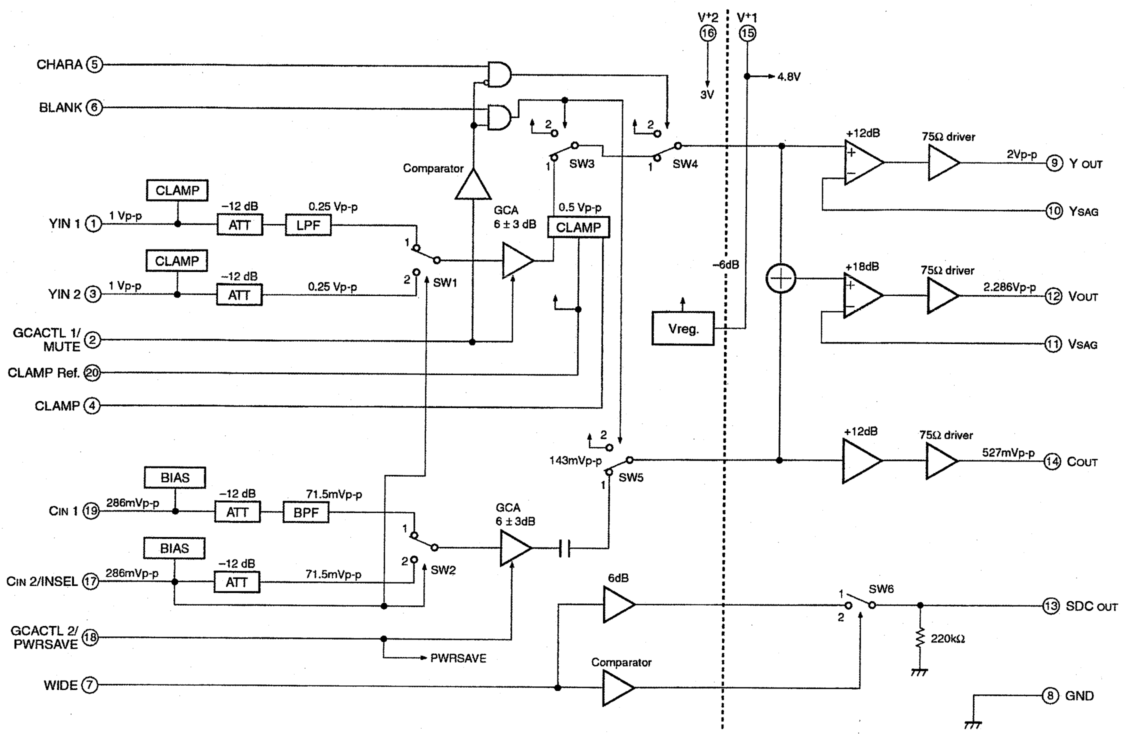

1 COMMON
3 OUTPUT
2 INPUT
R1
R2
R4
Q4
Q3
Q1
Q2
R3
R5
R6
Q15
R14
Q5
Q6
Q7
R7
Q14
R17
R15
D1
D2
Q8
Q9
Q11
R8
R10
C
Q12
R18
R19
Q13
R13
Q10
R12
RX
R11
R16

■ NJM79L08UA-X [JRC]
(Refer to NJM79L05UA-X.)

■ NJM2538V-X [JRC]
(Video Amp.)

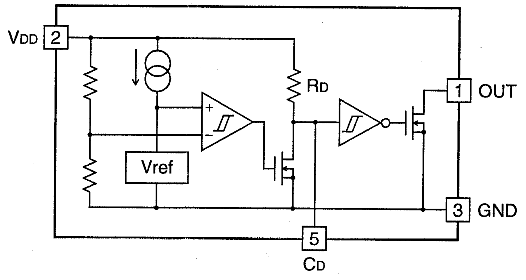
(Top View)


CLAMP Ref. 20
CIN1 19
GCACTL2 /PWRSAVE 18
CIN2/ INSEL 17
V+2 16
V+1 15
COUT 14
SDCOUT 13
VOUT 12
VSAG 11
NJM2538V
JRC
1 YIN1
2 GCACTL1 /MUTE
3 YIN2
4 CLAMP
5 CHARA
6 BLANK
7 WIDE
8 GND
9 YOUT
10 YSAG


CHARA 5
BLANK 6
Comparator
CLAMP
YIN 1 1
1 Vp-p
-12 dB
ATT
0.25 Vp-p
LPF
CLAMP
YIN 2 3
1 Vp-p
-12 dB
ATT
0.25 Vp-p
SW1
GCA
6 ± 3 dB
0.5 Vp-p
CLAMP
SW3
SW4
GCACTL 1/ MUTE 2
CLAMP Ref. 20
CLAMP 4
BIAS
CIN 1 19
286mVp-p
-12 dB
ATT
71.5mVp-p
BPF
BIAS
CIN 2/INSEL 17
286mVp-p
-12 dB
ATT
71.5mVp-p
SW2
GCA
6 ± 3dB
143mVp-p
SW5
GCACTL 2/ PWRSAVE 18
PWRSAVE
WIDE 7
6dB
Comparator
V+2 16
V+1 15
3V
4.8V
-6dB
Vreg.
+12dB
75Ω driver
2Vp-p
9 Y OUT
10 YSAG
+18dB
75Ω driver
2.286Vp-p
12 VOUT
11 VSAG
+12dB
75Ω driver
527mVp-p
14 COUT
SW6
220kΩ
13 SDC OUT
8 GND

■ RN5VD26AA-X [RICHO]
(Voltage detector)

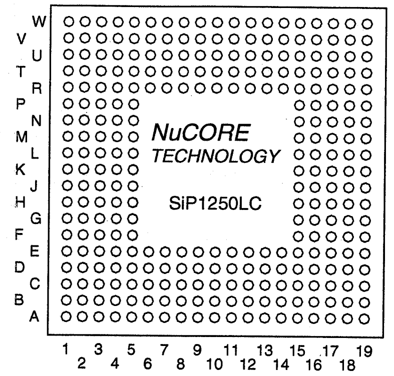
Block diagram


VDD 2
RD
Vref
1 OUT
3 GND
5
CD

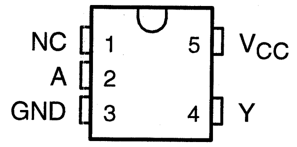
Pin descriptions

Pin Number	Pin Name	Pin Description
1	OUT	Output terminal
2	VDD	Power supply terminal
3	GND	Ground terminal
4	NC	Not connect
5	CD	External capacitor connecting terminal for delay

■ SIP1250LC [NuCORE TECHNOLOGY]
(Smart image processor for DVC)


W
V
U
T
R
P
N
M
L
K
J
H
G
F
E
D
C
B
A
NuCORE
TECHNOLOGY
SIP1250LC
1 3 5 7 9 11 13 15 17 19
2 4 6 8 10 12 14 16 18

■ SN74AHC1G04K-X [TEXAS INSTRUMENTS]
(Single Inverter Gate)

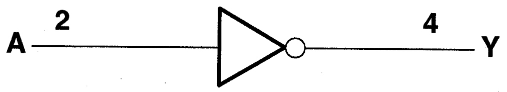

NC 1
A 2
GND 3
5 VCC
4 Y

(TOP VIEW)

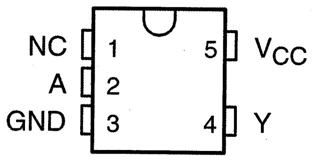
FUNCTION TABLE

INPUT A	OUTPUT Y
H	L
L	H

Logic diagram (positive logic)



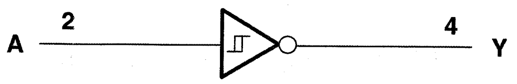
■ SN74AHC1G14K-X [TEXAS INSTRUMENTS]
(Single Schmitt-trigger Inverter Gate)


NC 1
A 2
GND 3
5 VCC
4 Y

(TOP VIEW)

NC-No internal connection

logic diagram (positive logic)

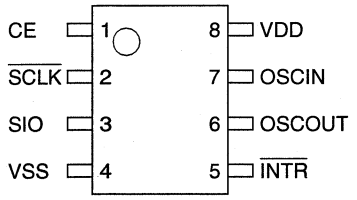


FUNCTION TABLE

INPUT A	OUTPUT Y
H	L
L	H

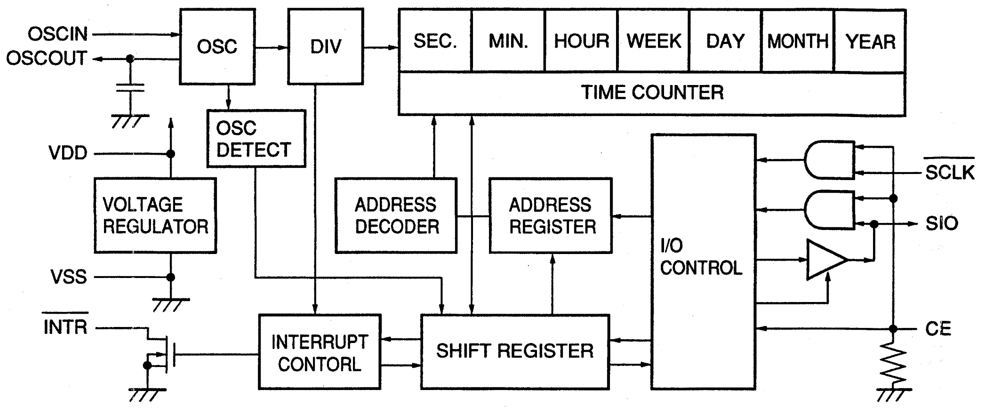
4-51

RS5C314-X [RICHO]
(CMOS Realtime Clock)

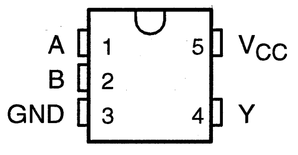

CE 1
8 VDD
SCLK 2
7 OSCIN
SIO 3
6 OSCOUT
VSS 4
5 INTR

(Top view)

Block diagram


OSCIN
OSCOUT
OSC
DIV
SEC.
MIN.
HOUR
WEEK
DAY
MONTH
YEAR
TIME COUNTER
OSC DETECT
VDD
VOLTAGE REGULATOR
ADDRESS DECODER
ADDRESS REGISTER
I/O CONTROL
SCLK
SIO
VSS
INTR
INTERRUPT CONTORL
SHIFT REGISTER
CE

SN74AHC1G32K-X [TEXAS INSTRUMENTS]
(Single 2-Input Positive OR Gate)

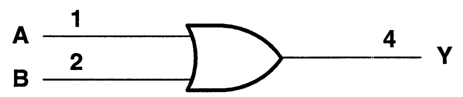

A 1
B 2
GND 3
5 VCC
4 Y

(TOP VIEW)

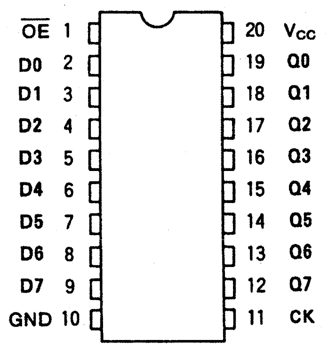
FUNCTION TABLE

INPUTS		OUTPUT
A	B	Y
H	X	H
X	H	H
L	L	L

Logic diagram (positive logic)

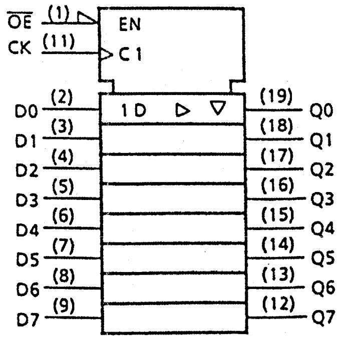


SN74AHC574PW-X [TEXAS INSTRUMENTS]
(Octal D-Type EDGE-Trigger Flip-Flop With NON Inverted 3-State Outputs)


OE 1
D0 2
D1 3
D2 4
D3 5
D4 6
D5 7
D6 8
D7 9
GND 10
20 Vcc
19 Q0
18 Q1
17 Q2
16 Q3
15 Q4
14 Q5
13 Q6
12 Q7
11 CK

(TOP VIEW)

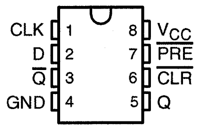
Logic


OE (1)
CK (11)
EN
C1
1D
D0 (2)
D1 (3)
D2 (4)
D3 (5)
D4 (6)
D5 (7)
D6 (8)
D7 (9)
(19) Q0
(18) Q1
(17) Q2
(16) Q3
(15) Q4
(14) Q5
(13) Q6
(12) Q7

INPUTS			OUTPUT
$\overline{OE}$	CK	D	
H	X	X	Z
L	↓	X	Qn
L	↑	L	L
L	↑	H	H

X : Don't Care
Z : High Impedance
Qn : No Change

SN74AHC2G74U-X [TEXAS INSTRUMENTS]
(D-Type Flip-Flop with Preset and Clear)


CLK 1
D 2
Q̄ 3
GND 4
8 VCC
7 PRE
6 CLR
5 Q

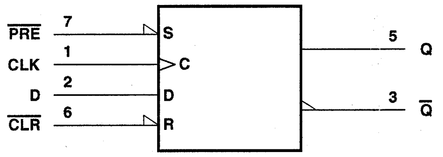
(TOP VIEW)

FUNCTION TABLES

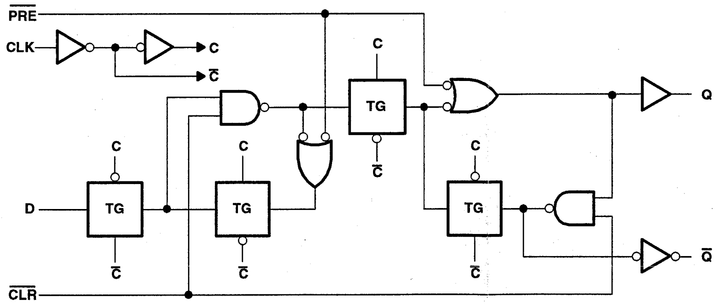
INPUTS				OUTPUTS	
$\overline{PRE}$	$\overline{CLR}$	CLK	D	Q	$\overline{Q}$
L	H	X	X	H	L
H	L	X	X	L	H
L	L	X	X	H†	H†
H	H	↑	H	H	L
H	H	↑	L	L	H
H	H	↓	X	Q_0	$\overline{Q}_0$

† This configuration is nonstable; that is, it does not persist when $\overline{PRE}$ or $\overline{CLR}$ returns to its inactive (high) level.

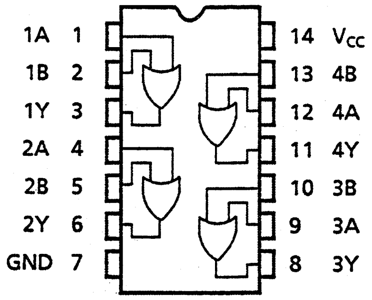
Logic symbol


PRE 7
CLK 1
D 2
CLR 6
S
C
D
R
5 Q
3 Q̄

Block diagram


PRE
CLK
C
C̄
TG
D
Q
Q̄
CLR

TC74VHC32FT-X [TOSHIBA]
(Quad 2-Input OR Gates)

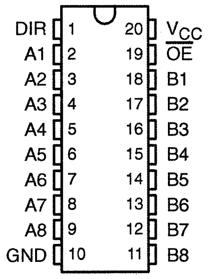

1A 1
1B 2
1Y 3
2A 4
2B 5
2Y 6
GND 7
14 Vcc
13 4B
12 4A
11 4Y
10 3B
9 3A
8 3Y

(TOP VIEW)

TRUE Table

A	B	Y
H	H	H
L	H	H
H	L	H
L	L	L

SN74AHC245DGV-X [TEXAS INSTRUMENTS]
(Octal Bus Transceivers with 3-State Outputs)

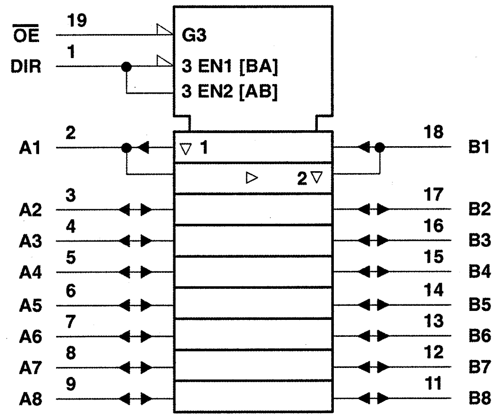

DIR 1
A1 2
A2 3
A3 4
A4 5
A5 6
A6 7
A7 8
A8 9
GND 10
20 VCC
19 OE
18 B1
17 B2
16 B3
15 B4
14 B5
13 B6
12 B7
11 B8

(TOP VIEW)

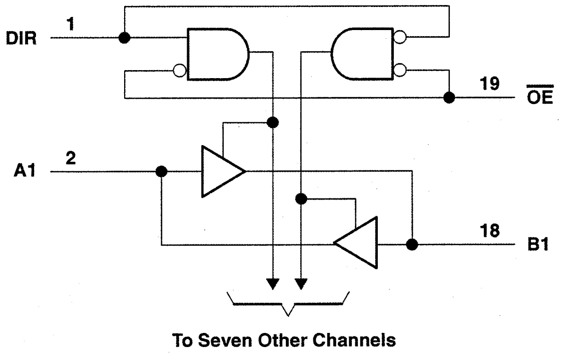
FUNCTION TABLE
(each transceiver)

INPUTS		OPERATION
$\overline{OE}$	DIR	
L	L	B data to A bus
L	H	A data to B bus
H	X	Isolation

Logic symbol

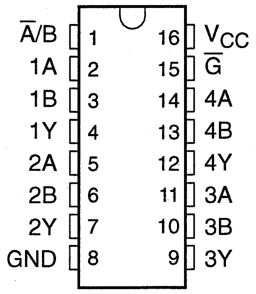

OE 19
DIR 1
G3
3 EN1 [BA]
3 EN2 [AB]
A1 2
A2 3
A3 4
A4 5
A5 6
A6 7
A7 8
A8 9
18 B1
17 B2
16 B3
15 B4
14 B5
13 B6
12 B7
11 B8
▽1
2▽

Logic diagram (positive logic)


DIR 1
19 OE
A1 2
18 B1
To Seven Other Channels

SN74LV157APW-X [TEXAS INSTRUMENTS]
(4channel 2line-1line data Selectors/Multiplexers)

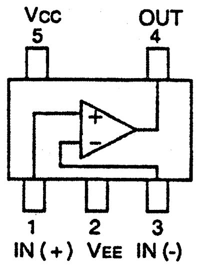
(TOP VIEW)


A/B 1
1A 2
1B 3
1Y 4
2A 5
2B 6
2Y 7
GND 8
16 VCC
15 G
14 4A
13 4B
12 4Y
11 3A
10 3B
9 3Y

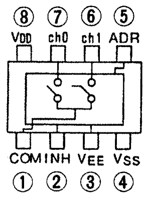
INPUTS				OUTPUT Y
$\overline{G}$	SELECT $\overline{A}$/B	DATA		
		A	B	
H	X	X	X	L
L	L	L	X	L
L	L	H	X	H
L	H	X	L	L
L	H	X	H	H

H : High level
L : Low level
X : Don't care

TA75S01F-X [TOSHIBA]
(Single Op.Amp.)


Vcc 5
OUT 4
1 IN (+)
2 VEE
3 IN (-)

TC4W53F-X [TOSHIBA]
(2-Channel Multiplexer)

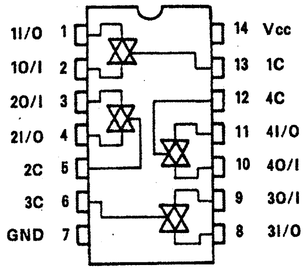

⑧ ⑦ ⑥ ⑤
VDD ch0 ch1 ADR
COM INH VEE VSS
① ② ③ ④

TRUE TABLE

CONTROL INPUT		ON CHANNEL
INH	ADR	
L	L	ch0
L	H	ch1
H	*	NONE

*Don't care

TC74HC4066AFT-X [TOSHIBA]
(Quad Analog Switches)

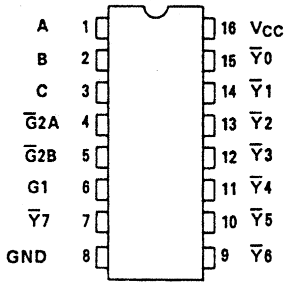

1I/O 1
1O/I 2
2O/I 3
2I/O 4
2C 5
3C 6
GND 7
14 Vcc
13 1C
12 4C
11 4I/O
10 4O/I
9 3O/I
8 3I/O

(TOP VIEW)

TRUE Table

CONTROL	SWITCH FUNCTION
H	ON
L	OFF

■ SN74LV138ADGV-X [TEXAS INSTRUMENTS]
(1 OF 8 Decoders/Demultiplexers)


A 1
B 2
C 3
G̅2A 4
G̅2B 5
G1 6
Y̅7 7
GND 8
16 Vcc
15 Y̅0
14 Y̅1
13 Y̅2
12 Y̅3
11 Y̅4
10 Y̅5
9 Y̅6

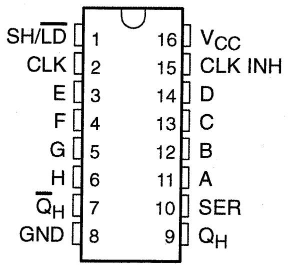
(TOP VIEW)

TRUE Table

INPUTS						OUTPUTS								SELECTED OUTPUT
ENABLE			SELECT											
G1	G̅2A	G̅2B	C	B	A	Y̅0	Y̅1	Y̅2	Y̅3	Y̅4	Y̅5	Y̅6	Y̅7	
L	X	X	X	X	X	H	H	H	H	H	H	H	H	NONE
X	H	X	X	X	X	H	H	H	H	H	H	H	H	NONE
X	X	H	X	X	X	H	H	H	H	H	H	H	H	NONE
H	L	L	L	L	L	L	H	H	H	H	H	H	H	Y̅0
H	L	L	L	L	H	H	L	H	H	H	H	H	H	Y̅1
H	L	L	L	H	L	H	H	L	H	H	H	H	H	Y̅2
H	L	L	L	H	H	H	H	H	L	H	H	H	H	Y̅3
H	L	L	H	L	L	H	H	H	H	L	H	H	H	Y̅4
H	L	L	H	L	H	H	H	H	H	H	L	H	H	Y̅5
H	L	L	H	H	L	H	H	H	H	H	H	L	H	Y̅6
H	L	L	H	H	H	H	H	H	H	H	H	H	L	Y̅7

X : DONT' CARE

■ SN74LV165ADGV-X [TEXAS INSTRUMENTS]
(8-Bit Serial or Parallel-In/Serial Out Shift Registers)

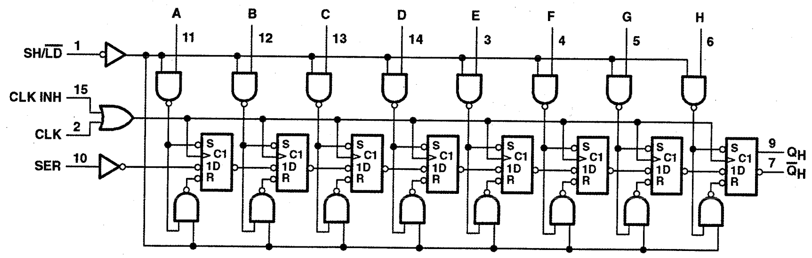

SH/L̅D̅ 1
CLK 2
E 3
F 4
G 5
H 6
Q̅H 7
GND 8
16 VCC
15 CLK INH
14 D
13 C
12 B
11 A
10 SER
9 QH

(TOP VIEW)

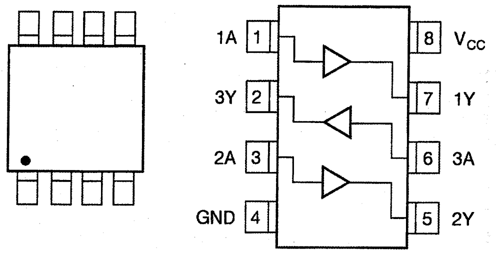
FUNCTION TABLE

INPUTS			OPERATION
SH/L̅D̅	CLK	CLK INH	
L	X	X	Parallel load
H	H	X	Q_0
H	X	H	Q_0
H	L	↑	Shift
H	↑	L	Shift

Logic diagram (positive logic)

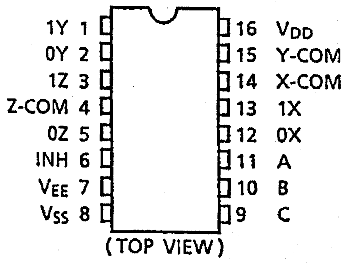

SH/L̅D̅ 1
CLK INH 15
CLK 2
SER 10
A 11
B 12
C 13
D 14
E 3
F 4
G 5
H 6
S
C1
1D
R
9 QH
7 Q̅H

■ TC7W34FU-X [TOSHIBA]
(Triple NON-Invert Buffer)

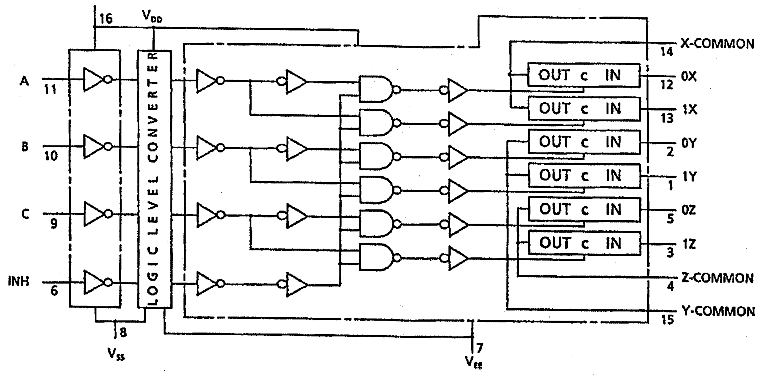

1A 1
3Y 2
2A 3
GND 4
8 Vcc
7 1Y
6 3A
5 2Y

Top View

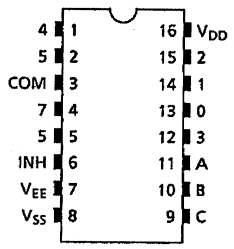
■ TC4053BF-W [TOSHIBA]
(Triple 2-Channel Multiplexer/Demultiplexer)


1Y 1
0Y 2
1Z 3
Z-COM 4
0Z 5
INH 6
VEE 7
VSS 8
16 VDD
15 Y-COM
14 X-COM
13 1X
12 0X
11 A
10 B
9 C
(TOP VIEW)

BLOCK DIAGRAM

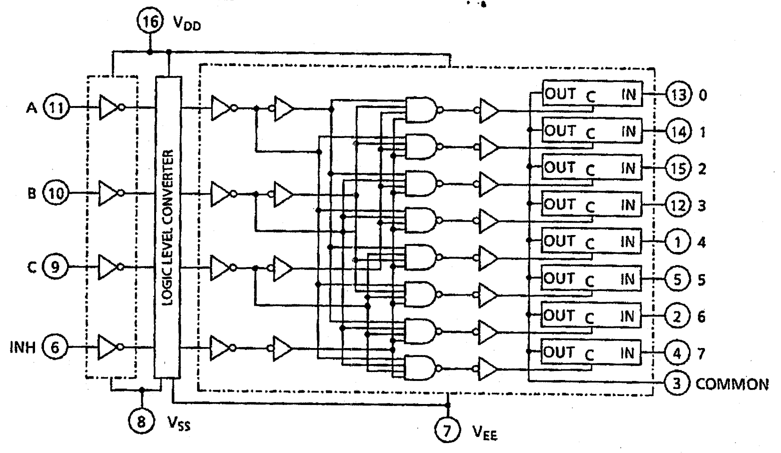

16 VDD
A 11
B 10
C 9
INH 6
LOGIC LEVEL CONVERTER
OUT c IN
14 X-COMMON
12 0X
13 1X
2 0Y
1 1Y
5 0Z
3 1Z
4 Z-COMMON
15 Y-COMMON
8 VSS
7 VEE

■ TC4051BF-X [TOSHIBA]
(Single 8-Channel Multiplexer/Demultiplexer)

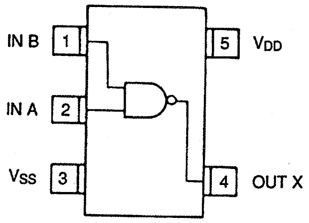

4 1
5 2
COM 3
7 4
5 5
INH 6
VEE 7
VSS 8
16 VDD
15 2
14 1
13 0
12 3
11 A
10 B
9 C

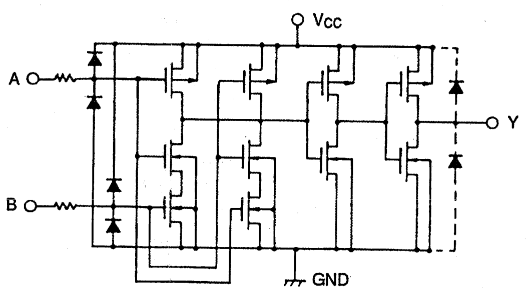
(TOP VIEW)

BLOCK DIAGRAM


16 VDD
A 11
B 10
C 9
INH 6
LOGIC LEVEL CONVERTER
OUT C IN
13 0
14 1
15 2
12 3
1 4
5 5
2 6
4 7
3 COMMON
8 VSS
7 VEE

■ TC7SH00FU-X [TOSHIBA]
(2-Input NAND Gate)


IN B 1
IN A 2
Vss 3
5 VDD
4 OUT X

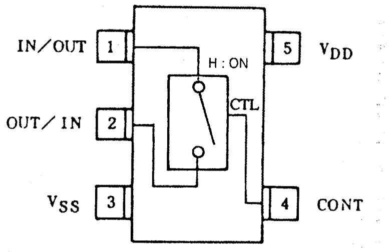


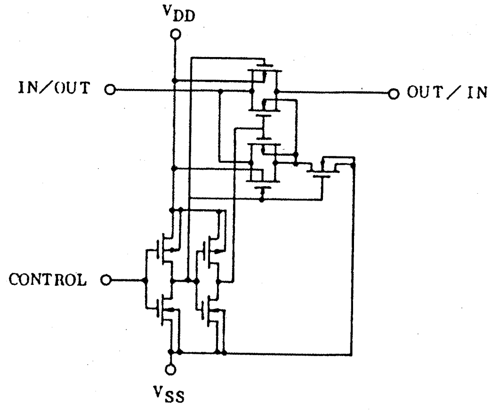
TRUE Table

A	B	X
L	L	H
L	H	H
H	L	H
H	H	L

■ TC4S66F-X [TOSHIBA]
(Analog Switch)

(TOP VIEW)

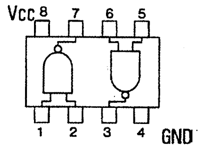

IN/OUT 1
OUT/IN 2
VSS 3
5 VDD
4 CONT
H: ON
CTL


VDD
IN/OUT
OUT/IN
CONTROL
VSS

CONTROL	IMPEDANCE BETWEEN IN/OUT-OUT/IN *
H	0.5 ~ 5 × 10² Ω
L	> 10⁹ Ω

※ See Electrical Characteristics

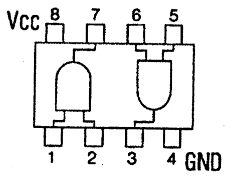
■ TC7W00FU-X [TOSHIBA]
(2 Input Dual NAND Gate)


Vcc 8
7
6
5
1
2
3
4
GND

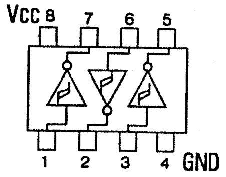
TRUE Table

A	B	X
L	L	H
L	H	H
H	L	H
H	H	L

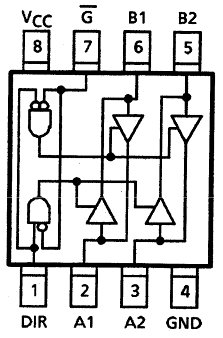
■ TC7W08FU-X [TOSHIBA]
(2 Input Dual AND Gate)


Vcc 8
7
6
5
1
2
3
4 GND

■ TC7W14FU-X [TOSHIBA]
(Schmitt Trigger Triple Inverte Gate)

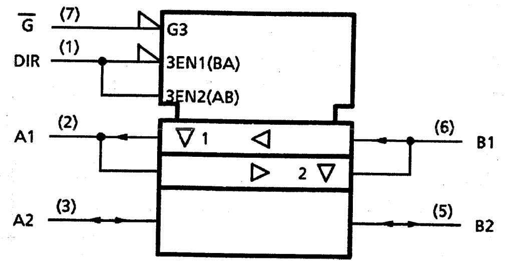

Vcc 8
7
6
5
1
2
3
4 GND

■ TC7WH245FU-X [TOSHIBA]
(Dual Bus Transceiver)


Vcc 8
G̅ 7
B1 6
B2 5
DIR 1
A1 2
A2 3
GND 4

(Top view)

LOGIC DIAGRAM

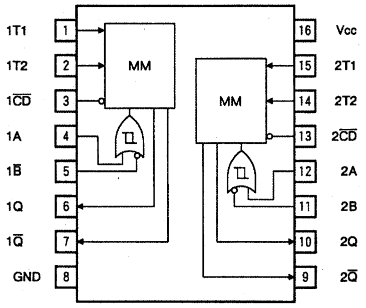

G̅ (7)
DIR (1)
G3
3EN1(BA)
3EN2(AB)
A1 (2)
A2 (3)
(6) B1
(5) B2
∇ 1
2 ∇

TRUTH TABLE

INPUTS		FUNCTION		OUTPUT
G̅	DIR	A BUS	B BUS	
L	L	OUTPUT	INPUT	A = B
L	H	INPUT	OUTPUT	B = A
H	×	High impedance		Z

× : Don't care
Z : High impedance

■ TC74HC4538AFT-X [TOSHIBA]
(Dual Retriggerable Monostable Multivibrator)

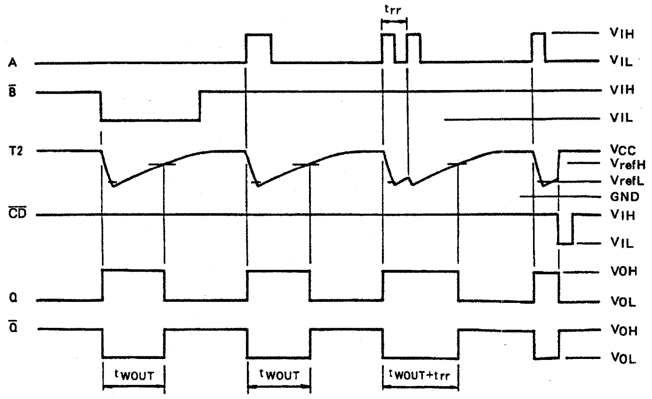

1T1
1T2
1CD
1A
1B
1Q
1Q̄
GND
Vcc
2T1
2T2
2CD
2A
2B
2Q
2Q̄
MM
MM

TOP VIEW

TRUE Table

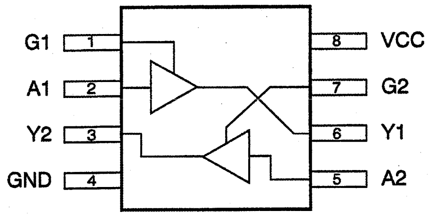
INPUT			OUTPUT		NOTE
A	B̄	CD̄	Q	Q̄	
↑	H	H	⊓	⊔	OUTPUT ENABLE
X	L	H	L	H	INHIBIT
H	X	H	L	H	INHIBIT
L	↓	H	⊓	⊔	OUTPUT ENABLE
X	X	L	L	H	INHIBIT

X:Don't Care


trr
A
B̄
T2
CD̄
Q
Q̄
VIH
VIL
VIH
VIL
Vcc
VrefH
VrefL
GND
VIH
VIL
VOH
VOL
VOH
VOL
twOUT
twOUT
twOUT+trr

■ TC7W126FU-X [TOSHIBA]
(Dual Bus Buffer)

(TOP VIEW)

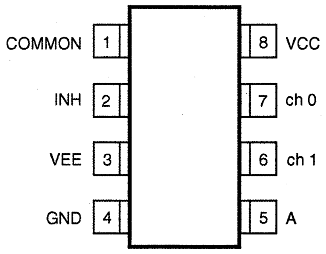

G1
A1
Y2
GND
1
2
3
4
8
7
6
5
VCC
G2
Y1
A2

Truth Table

INPUTS		OUTPUTS
G	A	Y
L	X	Z
H	L	L
H	H	H

X : Don't Cate
Z : High Impedance

■ TC7W53FU-X [TOSHIBA]
(2-Channel Multiplexer/Demultiplexer)


COMMON
INH
VEE
GND
1
2
3
4
8
7
6
5
VCC
ch 0
ch 1
A

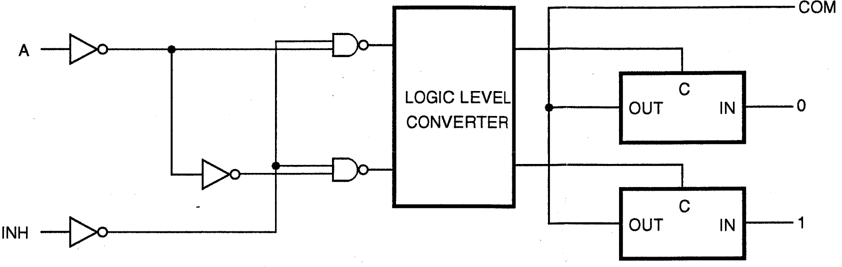
(TOP VIEW)

TRUTH TABLE

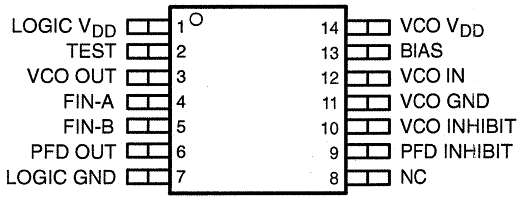
CONTROL INPUT		ON CHANNEL
INH	A	
L	L	ch 0
L	H	ch 1
H	x	NONE

x : Don't care

LOGIC DIAGRAM

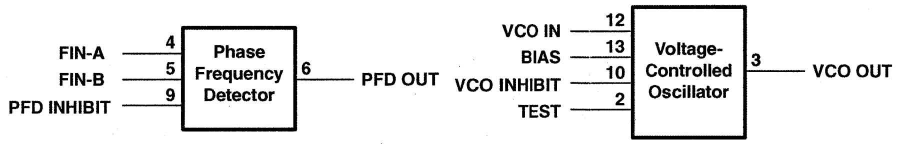

A
INH
LOGIC LEVEL CONVERTER
C
OUT
IN
C
OUT
IN
COM
0
1

■ TLC2933IPW-X [TEXAS INSTRUMENTS]
(Phase Locked Loop)


LOGIC VDD
TEST
VCO OUT
FIN-A
FIN-B
PFD OUT
LOGIC GND
1
2
3
4
5
6
7
14
13
12
11
10
9
8
VCO VDD
BIAS
VCO IN
VCO GND
VCO INHIBIT
PFD INHIBIT
NC

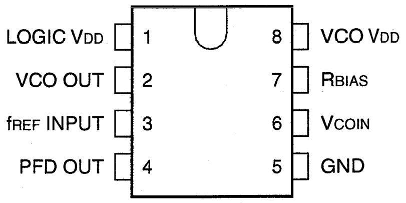
(Top View)

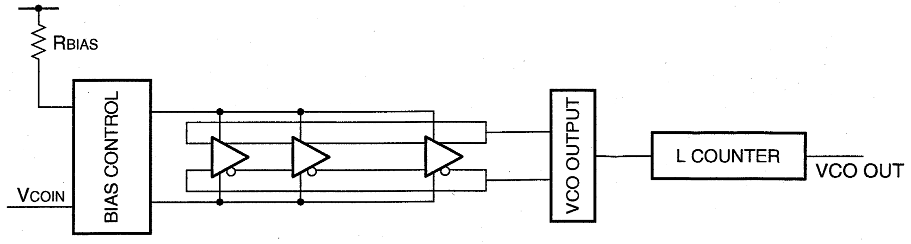
functional block diagram


FIN-A
FIN-B
PFD INHIBIT
4
5
9
Phase Frequency Detector
6
PFD OUT
VCO IN
BIAS
VCO INHIBIT
TEST
12
13
10
2
Voltage-Controlled Oscillator
3
VCO OUT

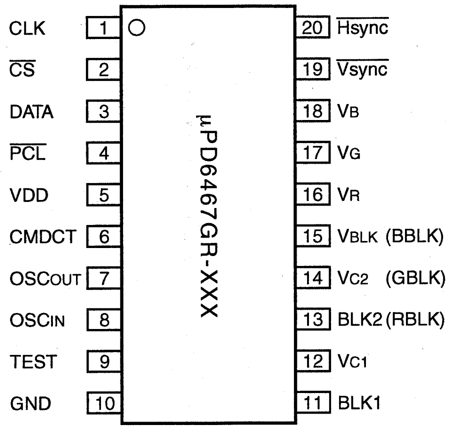
■ TLC2940IPW-X [TEXAS INSTRUMENTS]
(75MHz CMOS VCO)

(TOP VIEW)


LOGIC VDD
VCO OUT
fREF INPUT
PFD OUT
1
2
3
4
8
7
6
5
VCO VDD
RBIAS
VCOIN
GND

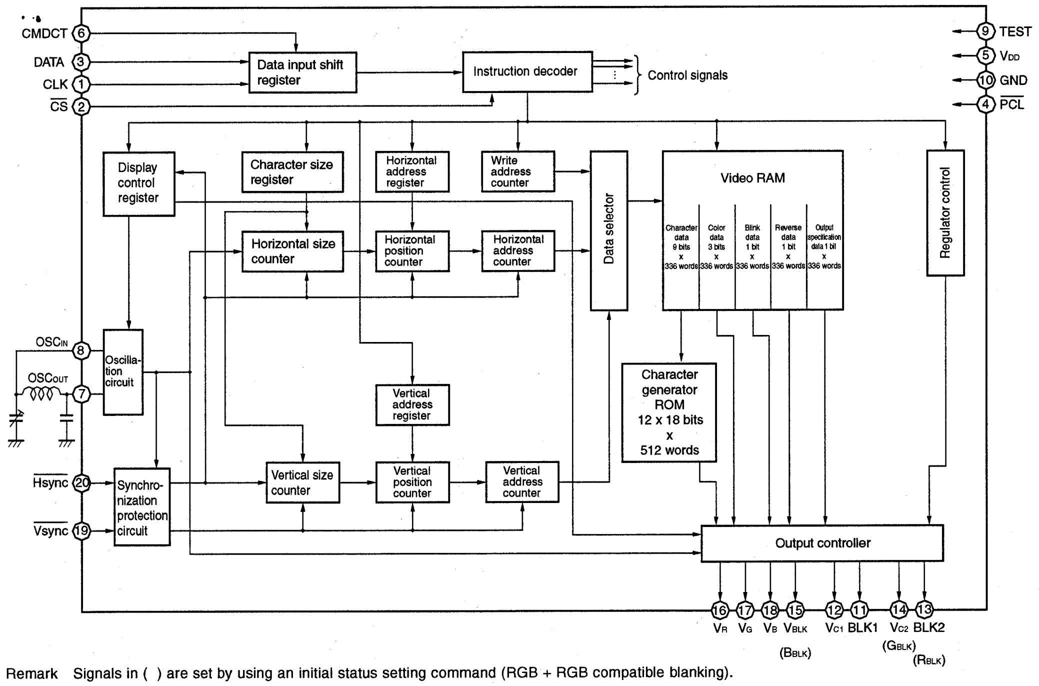

RBIAS
VCOIN
BIAS CONTROL
VCO OUTPUT
L COUNTER
VCO OUT

■ UPD6467GR-533-X [NEC]
(ON-SCREEN CHARACTER DISPLAY)


CLK
CS̄
DATA
PCL̄
VDD
CMDCT
OSCOUT
OSCIN
TEST
GND
1
2
3
4
5
6
7
8
9
10
μPD6467GR-XXX
20
19
18
17
16
15
14
13
12
11
Hsync̄
Vsync̄
VB
VG
VR
VBLK (BBLK)
VC2 (GBLK)
BLK2 (RBLK)
VC1
BLK1

(Top View)

BLOCK DIAGRAM


CMDCT 6
DATA 3
CLK 1
CS̄ 2
Data input shift register
Instruction decoder
Control signals
9 TEST
5 VDD
10 GND
4 PCL̄
Display control register
Character size register
Horizontal address register
Write address counter
Data selector
Video RAM
Character data 9 bits x 336 words
Color data 3 bits x 336 words
Blink data 1 bit x 336 words
Reverse data 1 bit x 336 words
Output specification data 1 bit x 336 words
Regulator control
Horizontal size counter
Horizontal position counter
Horizontal address counter
OSCIN 8
OSCOUT 7
Oscilla-tion circuit
Vertical address register
Character generator ROM 12 x 18 bits x 512 words
Hsync̄ 20
Vsync̄ 19
Synchro-nization protection circuit
Vertical size counter
Vertical position counter
Vertical address counter
Output controller
16 VR
17 VG
18 VB
15 VBLK (BBLK)
12 VC1
11 BLK1
14 VC2 (GBLK)
13 BLK2 (RBLK)

Remark Signals in ( ) are set by using an initial status setting command (RGB + RGB compatible blanking).

SECTION 5
EXPLODED VIEW AND PARTS LIST

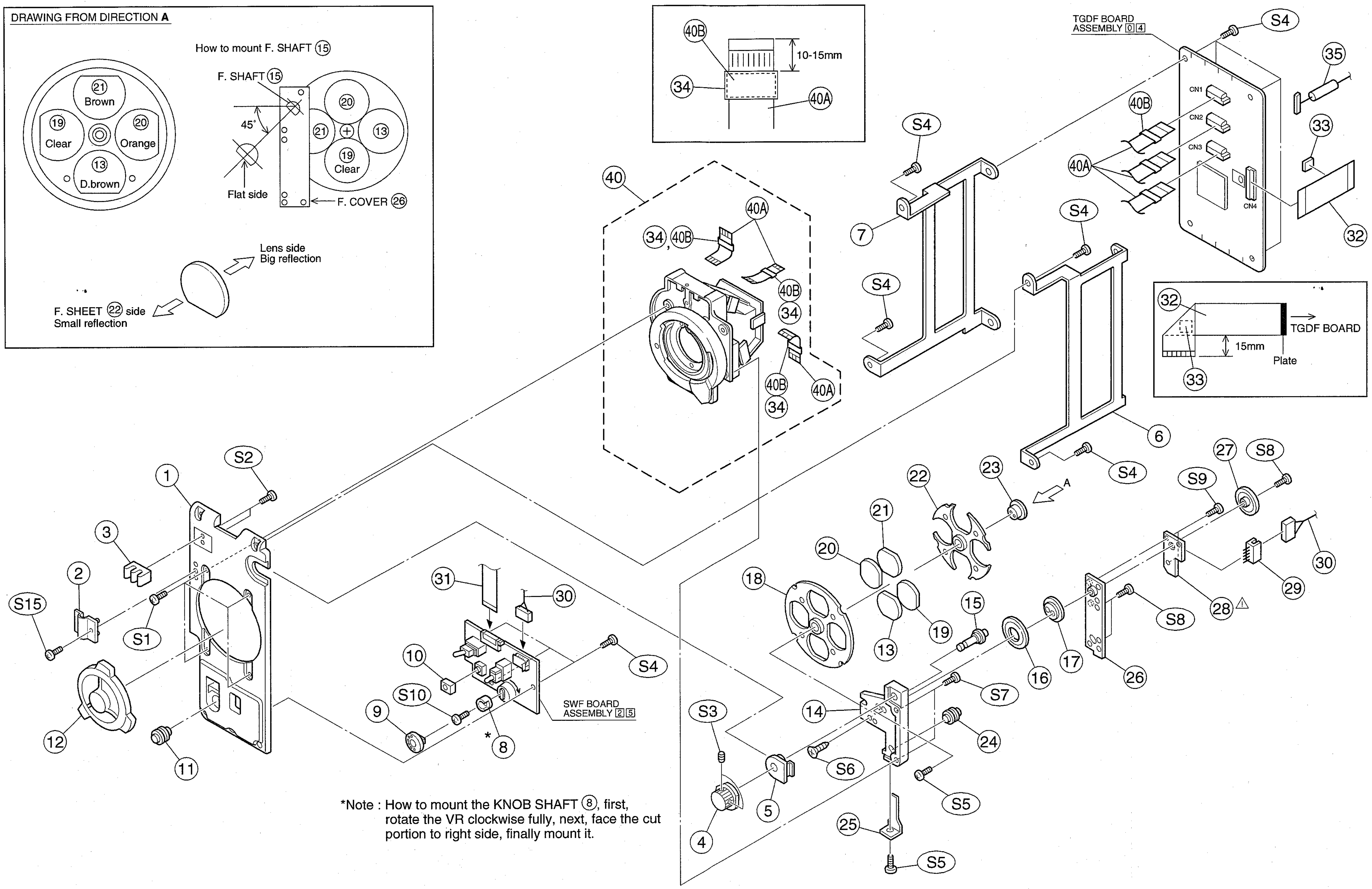
- **SAFETY PRECATION**
  Parts identified by the ⚠ symbol are critical for safety.
  Replace only with specified parts numbers.
- **NOTE**
  Parts not denoted by parts numbers are not supplied by JVC.

■ CAMERA HEAD ASSEMBLY PARTS LIST M1

M1MM☐☐☐☐

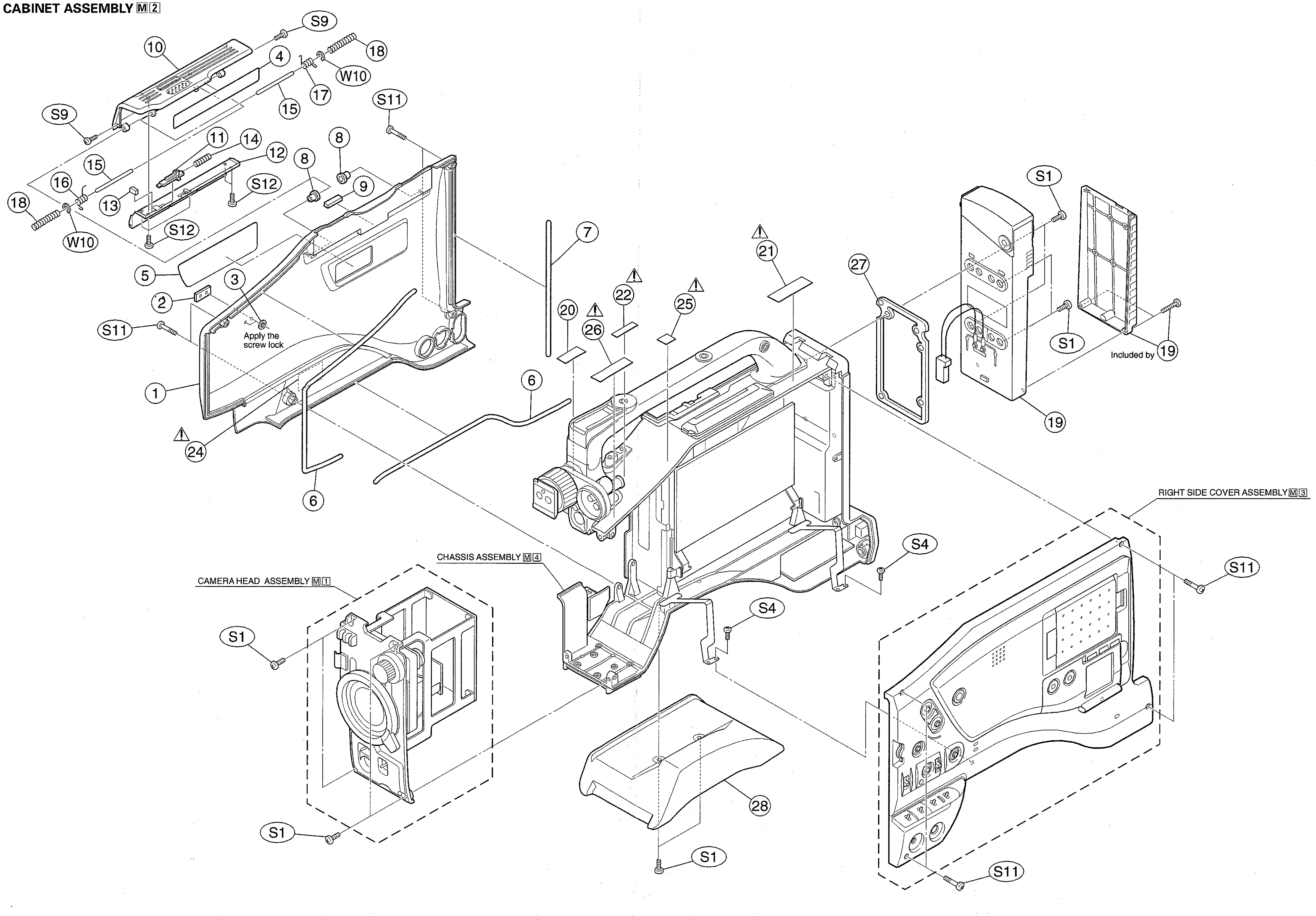
Symbol No.	Part No.	Part Name	Description
1	LW10065-001B	FRONT FRAME	
2	SC46668H-001	CABLE HOLDER	
3	SC42550H-011	C.HOLDER	
4	SC31363H-011	FILTER KNOB	
5	SC46517H-001	GEAR HOLDER	
6	LW30322-001A-H	TG.BRACKET(1)	
7	LW30323-001A-H	TG.BRACKET(2)	
8	SC46536H-001	KNOB SHAFT	
9	SC46518H-001	VR.KNOB	
10	SC46422H-001	CUSHION	
11	SC44828H-011	KNOB	VTR TRIG.
12	SC43825H-002	LENS CAP	
13	SC43842-004	FILTER(4)	D.BROWN,1/64ND
14	SC32308H-001	FILTER BASE	
15	SC46524H-001	F.SHAFT	
16	SC46523-001	F.I.GEAR	
17	SC44491H-001	F.I SHAFT	
18	LW30335-001A-H	FILTER WHEEL	
19	SC43840-001	FILTER(1)	CLEAR,3200K
20	SC43841-001	FILTER(2)	ORANGE,5600K
21	SC43842-002	FILTER(3)	BROWN,1/8ND
22	LW40342-001A-H	F.SHEET	
23	SC45539H-002	F.W.SHAFT	
24	SC44482-002	F.STOPPER	
25	SC44511-002	F.SPRING	
26	SC32309H-001	FILTER COVER	
27	SC44676H-005	FILTER CAP ASSY	
⚠ 28	SC83183-004	FILTER BOARD	
29	QGA1501C1-05	CONNECTOR	
30	QJJ027-051201	WIRE	CN10 SWF-FL
31	SCV2337-1028BD	FFC	CN33 DBCP-SWF
32	SCV2803-5010B	FFC	CN4 DBCP-TGDF
33	PRD42674	SHIELD CUSHION	CN4 DBCP-TGDF
34	HZT18-UL10-3M	ZETSUEN TAPE	
35	QQR0490-001	FILTER	
40	SCM1209-N0A	OPTICAL ASS'Y	U MODEL
40	SCM1209-P0A	OPTICAL ASS'Y	E MODEL
40A	SCV2803-4007B	FFC	x3
40B	QQR1381-001	FERRITE CORE	x3
S1	QYSDSP3006M	SCREW	200 M3x6
S2	QYSDSF2006M	SCREW	200 M2x6
S3	QYYASPR3004M	SCREW	200 M3x4
S4	QYSDSP2604Z	SCREW	200 M2.6x4
S5	QYSPSPT2030M	SCREW	200 M2x30
S6	QYSSSPT2040M	SCREW	200 M2x4.0
S7	SC43397H-009	SCREW	200
S8	QYSPSPT2050M	SCREW	200 M2x50
S9	QYSPSPT2040M	SCREW	200 M2x40
S10	QYSPSPT1730M	SCREW	200 M1.7x30
S15	QYSDSP2604M	SCREW	200 M2.6x4

5.1 CAMERA HEAD ASSEMBLY M1


DRAWING FROM DIRECTION A
How to mount F. SHAFT ⑮
F. SHAFT ⑮
45°
Flat side
F. COVER ㉖
㉑ Brown
⑲ Clear
⑳ Orange
⑬ D.brown
⑳
㉑
⑬
⑲ Clear
Lens side
Big reflection
F. SHEET ㉒ side
Small reflection
40B
34
40A
10-15mm
TGDF BOARD
ASSEMBLY 04
CN1
CN2
CN3
CN4
32
33
15mm
TGDF BOARD
Plate
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
40
40A
40B
34, 40B
A
SWF BOARD
ASSEMBLY 25
*

*Note : How to mount the KNOB SHAFT ⑧, first, rotate the VR clockwise fully, next, face the cut portion to right side, finally mount it.

5.2 CABINET ASSEMBLY M2


10
S9
4
18
W10
17
15
S11
S9
11
14
12
8
8
15
16
S12
9
18
13
W10
S12
5
3
2
Apply the screw lock
S11
1
⚠ 24
6
6
7
20
⚠ 26
⚠ 22
⚠ 25
⚠ 21
27
S1
S1
Included by 19
19
RIGHT SIDE COVER ASSEMBLY M3
S11
S4
CHASSIS ASSEMBLY M4
CAMERA HEAD ASSEMBLY M1
S1
S4
S1
28
S1
S11

■ CABINET ASSEMBLY PARTS LIST M2

M 2 M M ☐☐☐☐

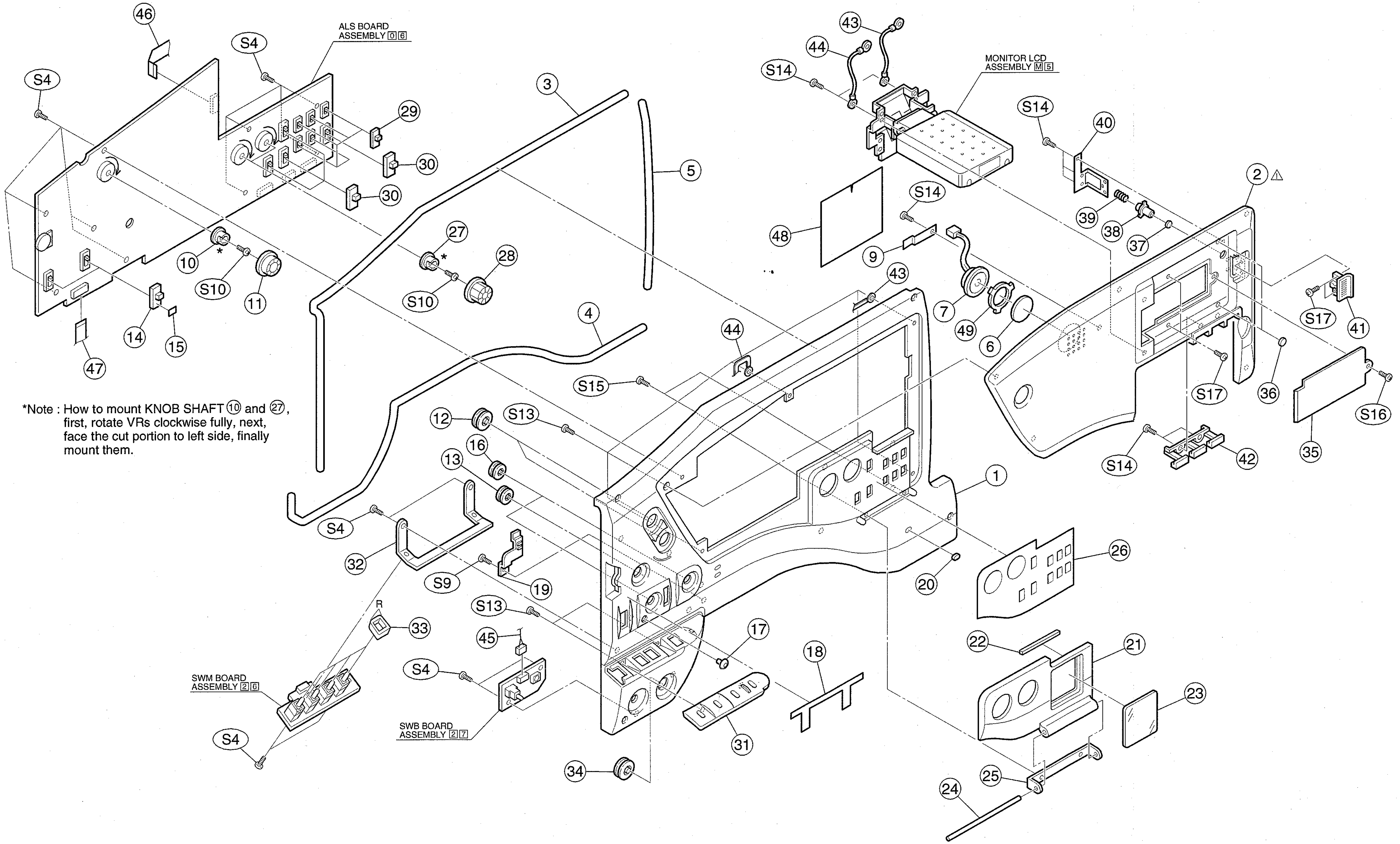
Symbol No.	Part No.	Part Name	Description
1	LW10070-002C	L.SIDE COVER	
2	–	MARK (JVC)	LW40363-001A
3	QYNSS2000P	P SPRING NUT	x2
4	LL40390-002A	LABEL	
5	LW30329-001A-H	ESCUT.PLATE	
6	SC46410-225	GASKET	x2
7	SC46410-110	GASKET	
8	SC46549H-001	BUSHING	x2
9	LW40404-001A-H	CUSHION	
10	LW20086-001B-H	CASSETE COVER	
11	LW30330-001A-H	LOCK KNOB	
12	LW30324-001A-H	COVER BRACKET	
13	LW40385-001A-H	CUSHION	
14	LW40366-001B-H	SPRING(2)	
15	SC46543H-001	HINGE SHAFT	x2
16	LW40382-001A-H	TORSION SPRING	
17	LW40382-002A-H	TORSION SPRING	
18	SC46546H-001	COMPRESS SPRING	x2
19	SCV2978-002	BATTERY HOLDER	
20	–	NAME PLATE	
⚠ 21	SC43658H-001	CAUTION LABEL	U MODEL
⚠ 22	SC46608H-021	CAUTION LABEL	
⚠ 24	QZL1001-012	UL LABEL	U MODEL
⚠ 25	SC45925H-001	CE LABEL	E MODEL
⚠ 26	SC46698H-001	CAUTION LABEL	E MODEL
27	SC46521H-001	BH CUSHION	
28	LW10076-001B	SHOULDER PAD	
S1	QYSDSP3006M	SCREW	M3x6
S4	QYSDSP2604Z	SCREW	M2.6x4
S9	QYSPSPT2040M	SCREW	M2x40
S11	SC43397H-008	SCREW	
S12	QYSDSF2004M	SCREW	M2x4
W10	QYREE1200X	E RING	

■ RIGHT SIDE COVER ASSEMBLY PARTS LIST M3

M3MM☐☐☐☐

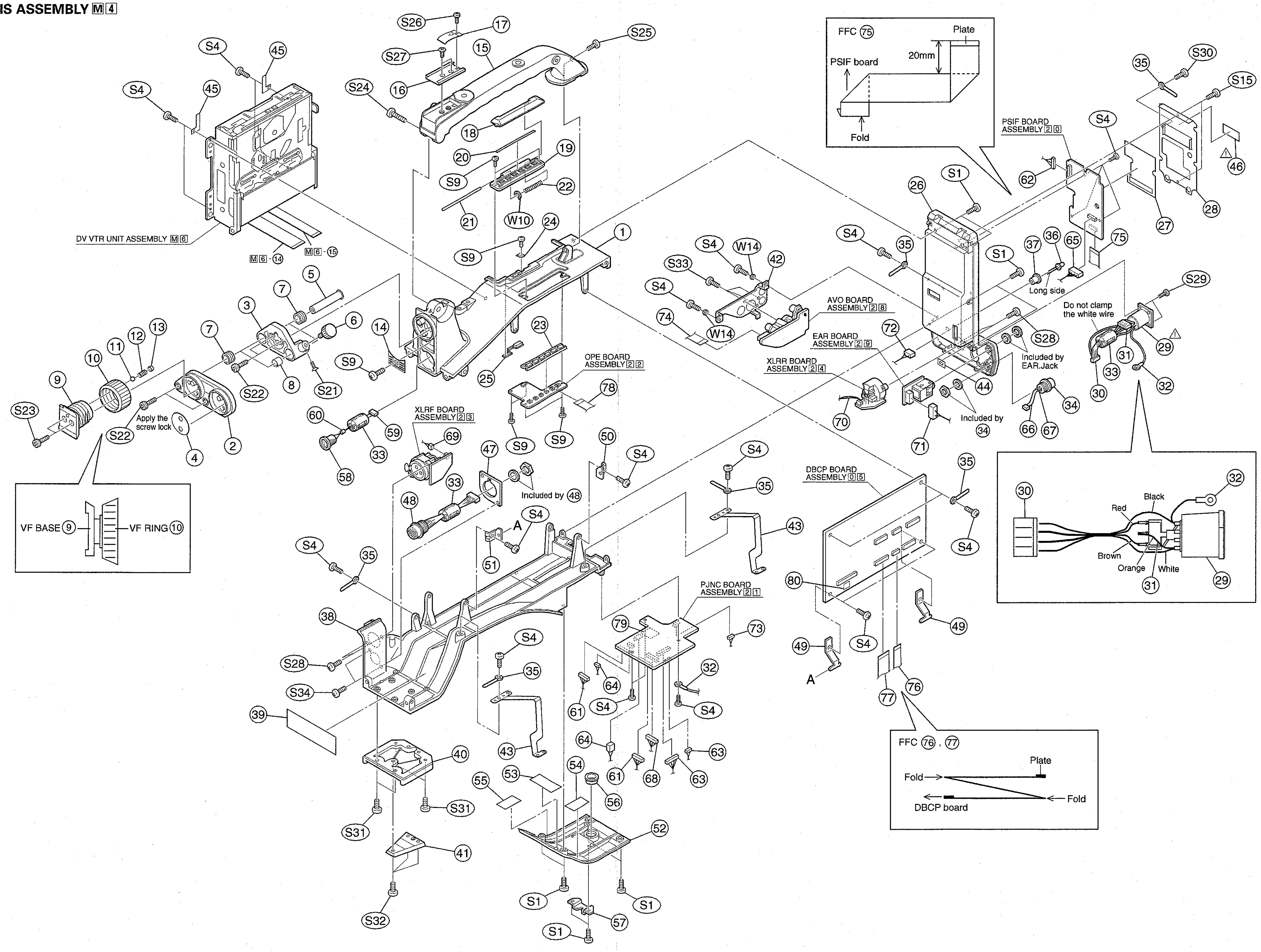
Symbol No.	Part No.	Part Name	Description
1	LW10069-001B	R.SIDE COVER	
⚠ 2	LW10073-001A-H	CHEEK PAD	
3	SC46410-370	GASKET	
4	SC46410-340	GASKET	
5	SC46410-120	GASKET	
6	SC46228H-001	SHEET	
7	QAS0063-001	SPEAKER	
9	LW40216-001B-H	SP BRACKET	
10	LW40327-001A-H	KNOB SHAFT	MONITOR
11	SC46537H-001	VR.KNOB	MONITOR
12	LW40330-001A-H	SWITCH CAP	EDIT SEARCH, x2
13	LW40328-001A-H	SWITCH CAP	STATUS
14	LW40329-001A-H	SLIDE KNOB	IRIS/BLACK,x2
15	SC46397-001	PLATE	IRIS/BLACK,x2
16	SC45246H-001	KNOB	F.AUTO/LOLUX,x2
17	SC43451-001	LED LENS	
18	LW40358-001B-H	LABEL	
19	LW30341-001B-H	LED PLATE	
20	SC46357H-001	CUSHION	
21	LW20083-001A-H	PANEL COVER	
22	LW40332-001A-H	RUBBER MAGNET	
23	LW40333-001A-H	PANEL WINDOW	
24	LW40334-001A-H	PANEL SHAFT	
25	LW40335-001A-H	SHAFT HOLDER	
26	LW30320-001A-H	AUDIO PANEL	
27	SC46536H-001	KNOB SHAFT	AUDIO LEVEL, x2
28	SC32289H-001	VOL.KNOB	AUDIO LEVEL, x2
29	SC45245H-011	SLIDE KNOB	AUDIO IN/SEL,x5
30	SC46796H-001	SLIDE KNOB	MONI/A.IN/TC,x4
31	LW30319-001B-H	SW.NAME PLATE	
32	LW40331-001A-H	BOARD BRACKET	
33	LW40383-001A-H	CUSHION	x4
34	SC44828H-011	KNOB	VTR
35	LW30321-001A-H	R COVER	
36	LW40188-001A-H	CUSHION	x2
37	LW40188-002A-H	CUSHION	
38	LW40336-001A-H	RELEASE KNOB	
39	LW40185-001A-H	RELEASE SPRING	
40	LW40187-001B-H	LOCK SPRING	
41	LW30339-001A-H	LOCK KNOB	
42	LW30340-001B-H	LCD KNOB	
43	QUB138-11RLRL	LUG WIRE ASS'Y	LCD-RSIDE COVER
44	QUB130-08RLRL	LUG WIRE ASS'Y	LCD-RSIDE COVER
45	QJJ031-030613	WIRE	CN41 ALS-SWB
46	SCV2803-3010B	FFC	CN303 ALS-M.RLY
47	SCV2337-0805BD	FFC	CN28 ALS-SWM
48	LW40412-001A-H	SHEET	
49	LW40410-001A-H	SHEET	
S4	QYSDSP2604Z	SCREW	M2.6x4
S9	QYSPSPT2040M	SCREW	M2x40
S10	QYSPSPT1730M	SCREW	M1.7x30
S13	QYSDSF2606Z	SCREW	M2.6x6
S14	QYSPSFU2050Z	SCREW	M2x5.0
S15	QYSDSP2604M	SCREW	M2.6x4
S16	QYSPSFU2050M	SCREW	M2x5.0
S17	LY30018-099A	SCREW	

5.3 RIGHT SIDE COVER ASSEMBLY M3


46
S4
ALS BOARD ASSEMBLY 06
S4
29
30
30
10
S10
11
14
15
47
3
5
27
28
S10
4
43
44
S14
MONITOR LCD ASSEMBLY M5
S14
40
2
48
S14
9
39
38
37
43
7
49
6
S17
41
44
S15
S17
36
S16
35
12
S13
16
13
S14
42
1
S4
32
S9
19
26
20
R
33
S13
45
17
18
22
21
S4
SWM BOARD ASSEMBLY 26
23
SWB BOARD ASSEMBLY 27
31
S4
34
25
24

*Note : How to mount KNOB SHAFT ⑩ and ㉗, first, rotate VRs clockwise fully, next, face the cut portion to left side, finally mount them.

5.4 CHASSIS ASSEMBLY M4


DV VTR UNIT ASSEMBLY M6
M6 - ⑭
M6 - ⑮
Apply the screw lock
VF BASE ⑨
VF RING ⑩
XLRF BOARD ASSEMBLY 23
Included by ㊽
OPE BOARD ASSEMBLY 22
PJNC BOARD ASSEMBLY 21
AVO BOARD ASSEMBLY 28
EAR BOARD ASSEMBLY 29
XLRR BOARD ASSEMBLY 24
Included by ㉞
Included by EAR.Jack
PSIF BOARD ASSEMBLY 20
Long side
Do not clamp the white wire
DBCP BOARD ASSEMBLY 05
FFC ㊾
Plate
20mm
PSIF board
Fold
Black
Red
Brown
Orange
White
FFC ㊿, (77)
Plate
Fold
Fold
DBCP board
A
A

■ CHASSIS ASSEMBLY PARTS LIST M 4

Symbol No.	Part No.	Part Name	Description
1	LW10067-001B	TOP FRAME	
2	LW30342-001B	VF S BASE	
3	LW30343-001B	VF H BASE	
4	LW40386-001A-H	CAP	
5	LW40350-001A-H	PIPE	x2
6	LW40351-001A-H	L SCREW	
7	LW40352-001A-H	STOPPER	x4
8	LW40353-001A-H	S PLATE	
9	SC31861H-001-K	VF BASE	
10	SC45127H-002	VF RING	
11	SC40465H-045	STEEL BALL	
12	LW40395-001A-H	LOCK SPRING	
13	LW40374-001A-H	CUSHION	
14	SC46531H-001	A.PLATE	
15	LW10077-001B-H	HANDLE	
16	SC40886H-001	SHOE	
17	C40936	SPRING	
18	LW30327-001A-H	OPE.COVER(U)	
19	LW30328-001A-H	OPE.COVER(B)	
20	SC46527H-011	OPE.PANEL	
21	LW40340-001A-H	OPE.SHAFT	
22	SC46532H-001	SPRING(1)	
23	SC32307H-002	OPE.KNOB	
24	LW40341-001A-H	LOCK BRACKET	
25	LW30331-001B-H	EJECT KNOB	
26	LW10068-001B	REAR FRAME	
27	LW40362-001A-H	PLATE	
28	LW30325-001B-H	REAR PLATE	
⚠ 29	QNZ0429-001	DC IN CONNECTOR	
30	WJM0324-001B	WIRE	
31	QUB143-03A3A3	WIRE	
32	QUB135-06QLA2	LUG WIRE ASS'Y	
33	QQR0490-001	FILTER	x3
34	QNZ0257-001	RECEPTACLE(4S)	DC OUT CONN.
35	PU49485-3	WIRE CLAMP	x7
36	SLR-56VR3F	L.E.D.	BACK TALLY
37	SM3512	L.E.D.MOUNT	FOR BACK TALLY
38	LW10066-001B	BOTTOM FRAME	
39	LW40392-001A-H	SHEET 4	
40	SC32367H-001	FRONT BASE	
41	LW30353-001A-H	SHOE	
42	LW30326-001B-H	CN BRACKET	
43	LW40375-001A-H	HINGE	x2
44	LW40411-001A	CUSHION	FOR DV TERMINAL
45	LW40393-001A-H	SHIELD	x2
⚠ 46	SC45456-001	LABEL	U MODEL
47	SC46554H-001	LENS BRACKET	
48	SCV3022-020	LENS CONNECTOR	CN35 DBCP-LENS
49	SC46545H-001	BOARD HOLDER	x2
50	SC46584H-001	STAY(1)	
51	SC46584H-002	STAY(2)	
52	LW10071-001B	BOTTOM COVER	
53	LW40389-001A-H	SHEET 1	
54	LW40390-001A-H	SHEET 2	
55	LW40391-001A-H	SHEET 3	
56	SC46519H-001	KNOB	FOR BREAKER
57	SC46670H-001	REAR BASE	
58	SCV0238-06S	VF CONNECTOR	
59	WJR0030-001B	WIRE	
60	QWTE200-010	SHRINK TUBE	x6
61	WJZ0107-001B	WIRE	CN8/9 DBCP-PJNC
62	WJJ0371-001A	WIRE	CN15 PJNC-PSIF
63	WJZ0108-001B	WIRE	CN16 PJNC-TGDF/CN111 PJNC-UNIT
64	WJZ0106-001A	WIRE	CN20 PJNC-REM/CN19 PJNC-BATT.
65	WJJ0372-001A	WIRE	CN18 PJNC-PSIF

M 3 M M ☐☐☐☐

Symbol No.	Part No.	Part Name	Description
66	WJM0325-001B	WIRE	CN22 PJNC-DCOUT
67	QWTA13H-015	VINYL TUBE	x2
68	QJJ020-101210	WIRE	CN29 PJNC-ALS
69	WJN0100-001A	WIRE	CN30 ALS-XLRF
70	QJN017-032401	WIRE	CN31 ALS-XLRR
71	QJJ031-053020	WIRE	CN38 ALC-EAR
72	QJJ025-020812	WIRE	CN40 PJNC-BKTLY
73	QJN027-061411	WIRE	CN101 PJNC-UNIT
74	SCV2337-1017BD	FPC	CN6 DBCP-AVO
75	QUQ105-3013AA	FFC	CN14 DBCP-PSIF
76	SCV2803-2015B	FFC	CN26 DBCP-ALS
77	SCV2803-3315B	FFC	CN27 DBCP-ALS
78	SCV2337-0615BD	FFC	CN34 DBCP-OPE
79	HZT18-UL10-3M	ZETSUEN TAPE	
80	PRD42674	SHIELD CUSHION	CN4 DBCP
S1	QYSDSP3006M	SCREW	M3x6
S4	QYSDSP2604Z	SCREW	M2.6x4
S9	QYSPSPT2040M	SCREW	M2x40
S15	QYSDSP2604M	SCREW	M2.6x4
S21	LY30018-089A	SCREW	
S22	QYYYSP4010M	BOLT	M4x10
S23	QYYYSP4025M	BOLT	M4x25
S24	QYSPSP5020M	SCREW	M5x20
S25	QYSPSP5012M	SCREW	M5x12
S26	QYSPSP2004N	SCREW	M2x4
S27	QYSSSP3006N	SCREW	M3x6
S28	QYSPSF3008M	SCREW	M3x8
S29	QYSPSP2606N	SCREW	M2.6x6
S30	QYSDST2605M	SCREW	M2.6x5
S31	QYSSSP4006N	SCREW	M4x6
S32	QYSDSP4006N	SCREW	M4x6
S33	QYSDSF3006M	SCREW	M3x6
S34	SC46625H-001	SCREW	
W10	QYREE1200X	E RING	
W14	QYWBS285803N	WASHER	

■ MONITOR LCD ASSEMBLY PARTS LIST M 5

M 5 M M ☐☐☐☐

Symbol No.	Part No.	Part Name	Description
⚠ 1	LW10074-001B-H	MONITOR COVER	
2	LW10075-001A-H	MONITOR CASE	
3	LW40349-001A-H	LCD BRACKET	
4	QLD0139-001	LCD MODULE	
5	QAL0222-001	FPC	
6	NSW0095-001	DETECT SWITCH	
⚠ 7	QLL0086-002	BACK LIGHT	
8	LW40190-001A-H	EARTH PLATE	
9	LW20084-001A-H	HINGE COVER1	
10	LW20074-001C-H	HINGE COVER2	
11	LY32079-001A	HINGE ASSEMBLY	
12	LW30350-001A-H	HINGE BRACKET	
13	LW40372-001A-H	SHEET	
S5	QYSPSPT2030M	SCREW	M2x30
S18	LY30018-042A	SCREW	
S19	LY30018-058A	SCREW	
S20	LY30018-059A	SCREW	
S21	LY30018-089A	SCREW	

5.5 MONITOR LCD ASSEMBLY M5

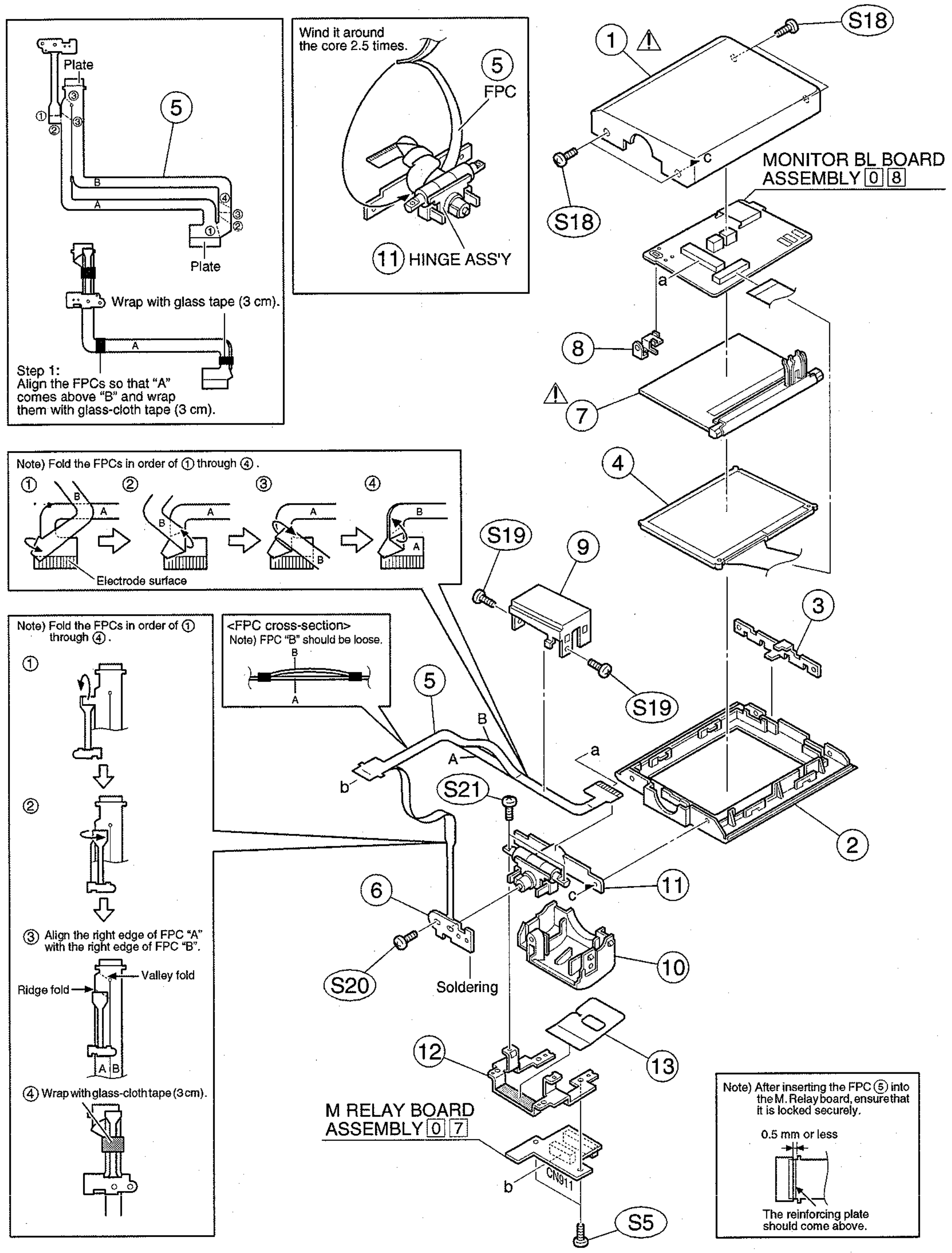


Plate
5
①
②
③
B
A
④
Plate
Wrap with glass tape (3 cm).
Wind it around the core 2.5 times.
FPC
11 HINGE ASS'Y
1 ⚠
S18
MONITOR BL BOARD ASSEMBLY 0 8
a
c
8
⚠ 7
4
S19
9
3
Electrode surface
Ridge fold
Valley fold
<FPC cross-section>
b
S21
2
11
6
S20
Soldering
10
12
13
M RELAY BOARD ASSEMBLY 0 7
CN911
S5
0.5 mm or less

Step 1:
Align the FPCs so that "A" comes above "B" and wrap them with glass-cloth tape (3 cm).

Note) Fold the FPCs in order of ① through ④.

Note) Fold the FPCs in order of ① through ④.

③ Align the right edge of FPC "A" with the right edge of FPC "B".

④ Wrap with glass-cloth tape (3 cm).

<FPC cross-section>
Note) FPC "B" should be loose.

Note) After inserting the FPC ⑤ into the M. Relay board, ensure that it is locked securely.

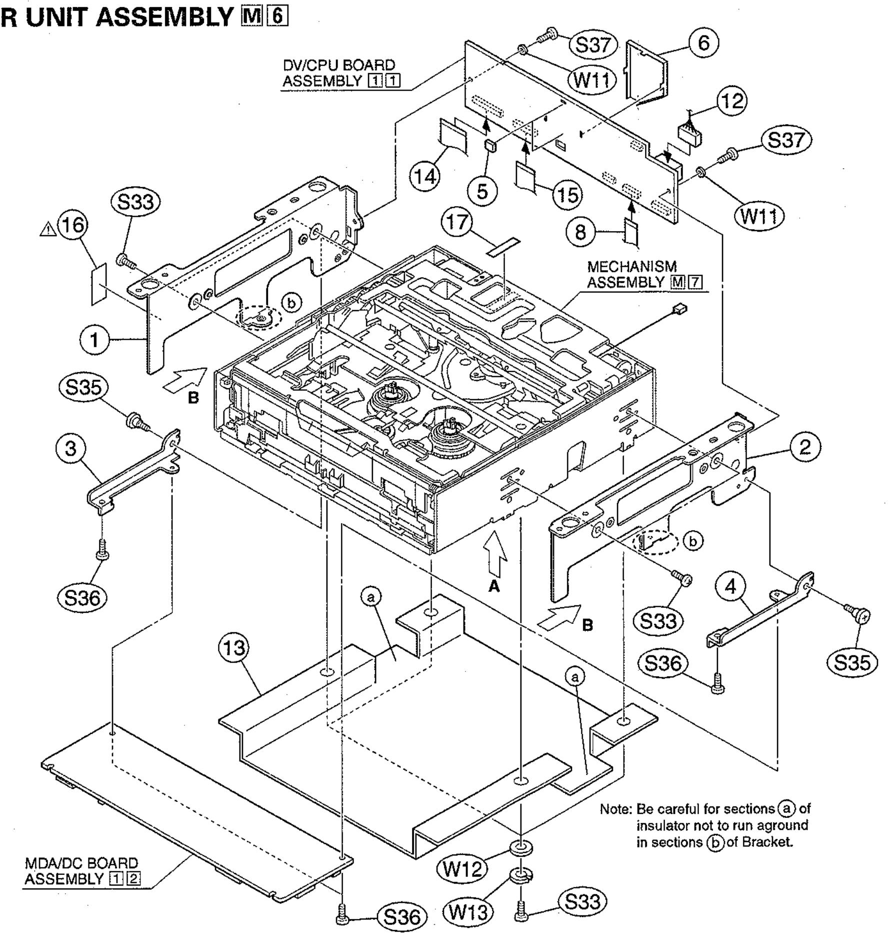
The reinforcing plate should come above.

DV VTR UNIT ASSEMBLY PARTS LIST M6

M6MM

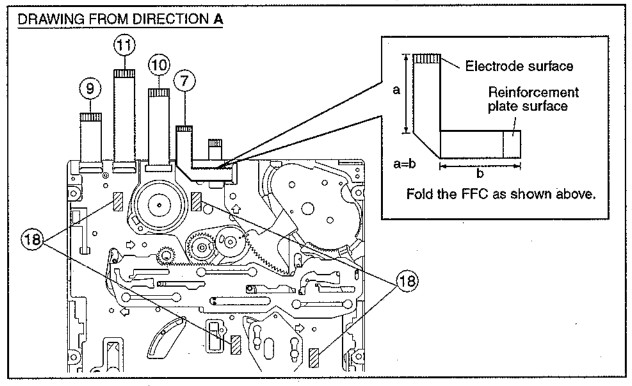
Symbol No.	Part No.	Part Name	Description
1	LL30314-001C-H	BRACKET (L)	
2	LL30315-001C-H	BRACKET (R)	
3	LL30316-001A-H	SUB BRACKET(L)	
4	LL30317-001A-H	SUB BRACKET(R)	
5	PRD30030-36	PAD	x2
6	LL40377-001A-H	SHIELD CASE	FOR DV/CPU
7	QUQ105-1305AA	FFC	DVC104-MECHA104
8	QUQ105-2609AA	FFC	DVC105-MDA105
9	QUQ105-2004AA	FFC	DVC106-MECHA106
10	QUQ105-1804AA	FFC	MDA113-CAP.M

5.6 DV VTR UNIT ASSEMBLY M6


DV/CPU BOARD ASSEMBLY 1 1
S37
W11
6
12
S37
W11
14
5
15
8
S33
⚠16
17
MECHANISM ASSEMBLY M7
b
1
S35
B
3
2
S36
A
b
a
4
B
S33
S36
S35
13
a
MDA/DC BOARD ASSEMBLY 1 2
W12
W13
S36
S33

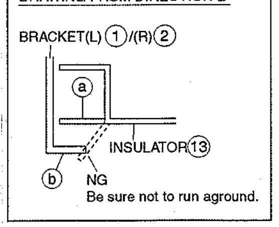
Note: Be careful for sections ⓐ of insulator not to run aground in sections ⓑ of Bracket.

DRAWING FROM DIRECTION A


11
10
9
7
18
18
Electrode surface
a
Reinforcement plate surface
a=b
b

Fold the FFC as shown above.

DRAWING FROM DIRECTION B


BRACKET(L) ①/(R)②
ⓐ
INSULATOR⑬
ⓑ
NG

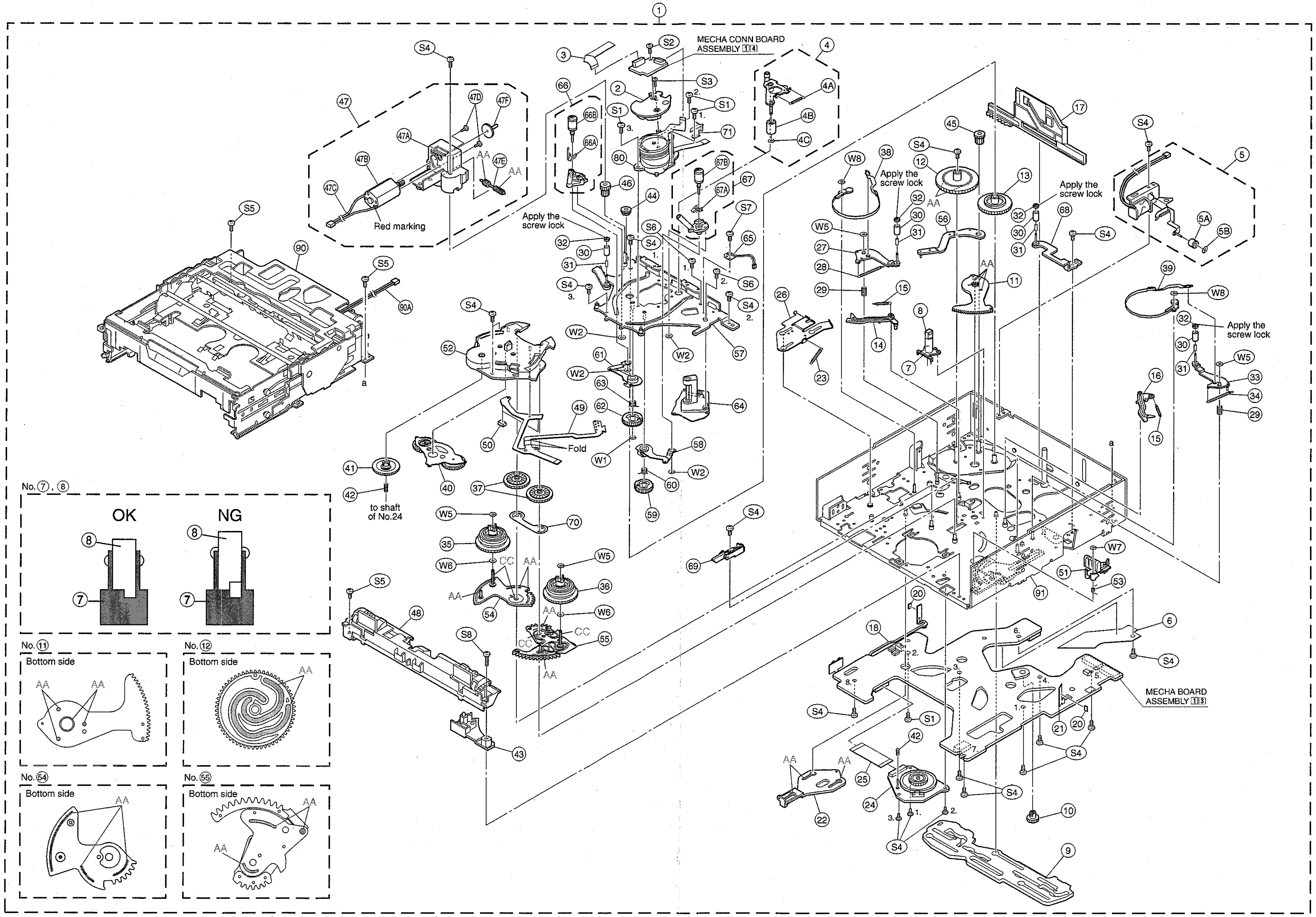
Be sure not to run aground.

DV VTR UNIT ASSEMBLY PARTS LIST M6

M6MM

Symbol No.	Part No.	Part Name	Description
11	QUQ105-2004AA	FFC	MDA116-MECHA116
12	QJJ027-081203	WIRE	DVC108-MDA108
13	LW30365-001A-H	INSULATOR	
14	QUQ105-4512AA	FFC	CN103 DBCP-UNIT
15	QUQ105-3013AA	FFC	CN102 DBCP-UNIT
⚠ 16	SC45456-001	LABEL	U MODEL
17	–	LABEL	IEEE1394 ID
18	LW40415-001A	CUSHION	
S33	QYSPSP3003Z	SCREW	M3x3
S35	PRD44099	SCREW	
S36	QYSDSP2004Z	SCREW	M2x4
S37	QYSPSPM2003Z	SCREW	M2x3
W11	QYWSS225003N	WASHER	
W12	QYWSS327005N	WASHER	
W13	QYWLS315907N	WASHER	

5.7 MECHANISM ASSEMBLY M7


①
MECHA CONN BOARD ASSEMBLY 14
Red marking
Apply the screw lock
Apply the screw lock
Apply the screw lock
Apply the screw lock
Fold
to shaft of No.24
a
MECHA BOARD ASSEMBLY 13
No.⑦, ⑧
OK
NG
No.⑪
Bottom side
No.⑫
Bottom side
No.(64)
Bottom side
No.(55)
Bottom side
AA
CC

Classifi-cation	Part No.	Symbol in drawing
Grease	KYODO-SH-P	AA
Oil	YTU94027	CC

NOTES:
- This section indicates that the grease and oil are to be applied on locations marked with **AA** and **CC**. During checking and servicing, check if grease has been applied on the locations marked with **AA** and oil on the locations marked with **CC**.
- Apply also grease and oil on some locations in the main cam gear and the cam groove at the rear side of the sub cam gear.

■ MECHANISM ASSEMBLY PARTS LIST M7

M7MM□□□□

Symbol No.	Part No.	Part Name	Description
1	LL30247-001A	MECHANISM ASS'Y	
2	LL20081-001A	TAPE GUARD	
3	WJT0085-001A	WIRE	
4	LL40370-001A	P.ARM F.ASS'Y	
4A	LL40357-001A	TEN.SPRING(P.A)	
4B	LL40313-001A	PINCH ROLLER	
4C	LY40382-001A	P.ROLLER CAP	
5	LL40371-001A	H.CLEANER ASS'Y	
5A	LY41249-001A	HEAD CLEANER SA	
5B	QYWDM0802725	SLIT WASHER	
6	LL40341-001A	GUIDE SHEET	
7	LL30257-001A	LED HOLDER	
8	LN59	L.E.D.	
9	LL20071-001A	CTL.PLATE	
10	LL30254-001A	M.SENSOR GEAR	
11	LL30260-001B	ARM GEAR	
12	LL20072-001A	MAIN CAM	
13	LL40241-001A	P.CAM GEAR	
14	LL30258-001A	SUP REEL LOCK	
15	LL40352-001A	TEN.SPRING(R.L)	x2
16	LL30259-001A	TU REEL LOCK	
17	LL30262-001A	PINCH PLATE	
18	NAL0015-001	FPC 2 ASSEMBLY	
20	CPT-230-X	PH.TRANSISTOR	x2
21	NAL0016-001	FPC 3 ASSEMBLY	
22	LL30255-001A	F.LOCK LEVER	
23	LL40351-001A	TEN.SPRING(FLL)	
24	QAR0247-001	REEL MOTOR	
25	WJT0084-001A	FFC	
26	LL30256-001B	SW LEVER	
27	–	SUP TEN.ARM SA.	LL30263-001A **(*1)**
28	LL40259-001B	TEN.SPRING(STA)	
29	LL40362-001A	COMP.SPRING	x2
30	LL40325-001A	GUIDE ROLLER	x4
31	LL40326-001A	COLLAR	x4
32	LL40327-001A	FLANGE	x4
33	–	TU TEN.ARM SA.	LL30265-001B **(*1)**
34	LL40353-001A	TEN.SPRING(TTA)	
35	LL30281-001A	SUP R.DISK ASSY	
36	LL30284-001A	TU R.DISK ASS'Y	
37	LL40261-001A	CONN.GEAR ASS'Y	x2
38	LL40293-001A	SUP T.BAND ASSY	
39	LL40300-001A	TU T.BAND ASS'Y	
40	LL40345-001A	IDLER ARM ASS'Y	
41	LL30272-001A	EMERGENCY GEAR	
42	LL40354-001A	COMP.SPRING(E.G)	
43	LL30303-001A	MIC GUIDE	
44	LL40242-001A	GEAR 1	
45	LL40243-001A	GEAR 2	
46	LL40244-001A	WORM WHEEL 2	
47	LL40245-001A	M.MOTOR ASS'Y	
47A	LL10068-001A	MOTOR BRACKET	
47B	LL40246-001A	MODE MOTOR SA	
47C	WJM0310-001A	WIRE	
47D	QYSPSPL2003Z	SCREW	M2x3

***1 : These parts can not be replaced individually. To replace them, please replace the MECHANISM assembly.**

Symbol No.	Part No.	Part Name	Description
47E	LL40248-001A	WORM ASSEMBLY	
47F	LL40252-001A	E.GEAR(MODE)	
48	LL20087-001B	CA.GUIDE ASS'Y	
49	NAL0014-001A	FPC 1 ASSEMBLY	
50	CNB1001001V1-X	I.C.(PH SENSOR)	x2
51	QNZ0586-001	M.I.C.CONNECTOR	
52	LL10067-001B	IDLE COVER	
53	LL40356-001A	TORSION SPRING	
54	LL40316-001A	S.R.PLATE ASS'Y	
55	LL40319-001A	T.R.PLATE ASS'Y	
56	LL40368-001A	CTL.ARM ASS'Y	
57	–	SUB DECK ASS'Y	LL20076-001A **(*1)**
58	LL40273-001A	TU L.ARM ASS'Y	
59	LL30273-001A	TU L.GEAR	
60	LL40277-001A	T.SPRING(T.L.G)	
61	LL40278-001A	SUP L.ARM ASS'Y	
62	LL30274-001A	SUP L.GEAR	
63	LL40282-001A	T.SPRING(S.L.G)	
64	QAR0248-001	CAPSTAN MOTOR	
65	QSD0006-001	DEW SENSOR	
66	LL30275-001A	SUP P.BASE ASSY	
66A	LL30277-001A	SUP P.B.PLATE	
66B	LL40284-001A	G.ROLLER ASS'Y	
67	LL30278-001A	TU P.BASE ASS'Y	
67A	LL30280-001A	TU P.B.PLATE	
67B	LL40284-001A	G.ROLLER ASS'Y	
68	–	E.G.R.ARM ASS'Y	LL40292-001A **(*1)**
69	LL40324-001A	M.C.B.PIN ASS'Y	
70	LL30306-001A	LEAF PLATE	
71	LL30339-001A	TU TAPE GUARD	
80	YDV2103A	DRUM ASSEMBLY	
90	LL20064-001A	C.HOUSING ASS'Y	
90A	WJM0311-001A	WIRE	
91	–	MAIN DECK ASS'Y	LL20063-001B **(*1)**
S1	QYSPSPU1735N	SCREW	M1.7x3.5
S2	QYSDSG2004N	SCREW	M2x4
S3	QYSPSPU1430M	SCREW	M1.4x3.0
S4	QYSPSPU1725M	SCREW	M1.7x2.5
S5	QYSDSP2005Z	SCREW	M2x5
S6	QYSDSP2003Z	SCREW	M2x3
S7	YQ43893	SCREW	M1.4x2
S8	QYSDSP2012Z	SCREW	M2x12
W1	QYWDL163525	SLIT WASHER	
W2	QYWDM254725	SLIT WASHER	
W5	QYWDM082525	SLIT WASHER	
W6	QYWFM123025	WASHER	
W7	QYWDM082025	SLIT WASHER	
W8	QYWDM123025	SLIT WASHER	

***1 : These parts can not be replaced individually. To replace them, please replace the MECHANISM assembly.**

SECTION 6
ELECTRICAL PARTS LIST

SAFETY PRECAUTION:
Parts identified by the ⚠ symbol are critical for safety. Replace only with specified parts numbers.
For maximum reliability and performance, all other replacement parts should be identical to those specified.

NOTE:
- Parts not denoted by parts numbers are not supplied by JVC.
- Abbreviations in this list are as follows:

RESISTORS
In the "Description" column:
All resistance values are in ohms (Ω).
k expresses kilo-ohm (1 000 ohms, kΩ).
M expresses mega-ohm (10^6 ohms, MΩ).

In the "Parts Name"column:
CAR.RESISTOR : Carbon Resistor
C.M.F.RESISTOR : Constant Metalized Film Resistor
COMP.RESISTOR :Composition Resistor
FUSI.RESISTOR : Fusible Resistor
M.F.RESISTOR : Metal Film Resistor
M.G.RESISTOR : Metal Graze Resistor
M.P.RESISTOR : Metal Plate Resistor
O.M.F.RESISTOR: Oxide Metalized Film Resistor
TRIM.RESISTOR : Trimerer Resistor
U.F.RESISTOR : Non-inflammable Resistor
VAL.RESISTOR : Valiable Resistor
W.W.RESISTOR : Wire Wound Resistor

CAPACITORS
In the "Description" column:
All capacitance values are in microfarad (μ F) unless otherwise indicated.
p expresses picofarad (10^{-12} farad,pF).

In the "Parts Name" column:
CER.CAPACITOR : Ceramic Capacitor
E.CAPACITOR : Electrolytic Capacitor
FILM CAPACITOR : Film Capacitor
M.F.CAPACITOR : Metalized Film Capacitor
MICA CAPACITOR : Mica Capacitor
MPP CAPACITOR : Metalized PolyPropylene Capacitor
MPPS CAPACITOR : Metalized PolyPhenylene Sulfied film Capacitor
M.M.CAPACITOR : Metalized Mylar Capacitor
MYLAR CAPACITOR : Mylar Capacitor
N.P.CAPACITOR : Non-Poler electrolytic Capacitor
P.P.CAPACITOR : PolyPropylene Capacitor
PPS CAPACITOR : PolyPhenylene Sulfied film Capacitor
P.S.CAPACITOR : PolyStyrene Capacitor
TAN.CAPACITOR : Tantal Capacitor
TRIM.CAPACITOR : Trimer Capacitor
VAL.CAPACITOR : Valiable Capacitor

Note: In the "Description" column of the parts list, (U) means the parts for the U version while (E) is for the E version.

Symbol No.	Part No.	Part Name	Description	
IC1	SCV1585-064	I.C.(M)	JVC (U)	← **for U version**
	SCV1585-067	I.C.(M)	JVC (E)	← **for E version**

6.1 ISB BOARD ASSEMBLY PARTS LIST 01

CK269800B1 01

Symbol No.	Part No.	Part Name	Description
IC2	AD9849AKST-W	I.C.(M)	ANALOG DEVICES
IC3	MN3112SA-X	I.C.(M)	MATSUSHITA
SK1	QNV0027-010	IC SOCKET	FOR IC1
Q1	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q2	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
D1	MA142A-X	DIODE	MATSUSHITA
R1	NRSA63J-105X	M.G.RESISTOR	1M 1/16W
R5	NRSA63J-682X	M.G.RESISTOR	6.8k 1/16W
R6	NRSA63J-822X	M.G.RESISTOR	8.2k 1/16W
R7	NRSA63J-822X	M.G.RESISTOR	8.2k 1/16W
R12	NRSA63J-104X	M.G.RESISTOR	100k 1/16W
R13	NRSA63J-821X	M.G.RESISTOR	820 1/16W
R14	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R15	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
RA1	NRZ0015-101X	RESISTOR ARRAY	100
RA2	NRZ0015-101X	RESISTOR ARRAY	100
RA3	NRZ0015-101X	RESISTOR ARRAY	100
C1	NBE41CM-106X	TAN.CAPACITOR	10 16V
C2	NBE21AM-106X	TAN.CAPACITOR	10 10V
C3	NBE21AM-106X	TAN.CAPACITOR	10 10V
C4	NBE41VM-335X	TAN.CAPACITOR	3.3 35V
C5	NBE51EM-106X	TAN.CAPACITOR	10 25V
C6	NBE41CM-106X	TAN.CAPACITOR	10 16V
C7	NBE21AM-106X	TAN.CAPACITOR	10 10V
C8	NBE91CM-105X	TAN.CAPACITOR	1 16V
C9	NBE91CM-105X	TAN.CAPACITOR	1 16V
C12	NBE21AM-106X	TAN.CAPACITOR	10 10V
C13	NBE91CM-105X	TAN.CAPACITOR	1 16V
C14	NBE41VM-335X	TAN.CAPACITOR	3.3 35V
C15	NCB11HK-224X	CER.CAPACITOR	0.22 50V
C16	NBE51EM-106X	TAN.CAPACITOR	10 25V
C17	NBE41VM-335X	TAN.CAPACITOR	3.3 35V
C18	NBE51EM-106X	TAN.CAPACITOR	10 25V
C51	NCB31EK-473X	CER.CAPACITOR	0.047 25V
C52	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C53	NCB11EK-105X	CER.CAPACITOR	1 25V
C54	NCB31EK-473X	CER.CAPACITOR	0.047 25V
C55	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C56	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C57	NCB31EK-473X	CER.CAPACITOR	0.047 25V
C61	NCB11EK-105X	CER.CAPACITOR	1 25V
C62	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C63	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C64	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C65	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C66	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C67	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C68	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C69	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C70	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C71	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C72	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C73	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C74	NCB31CK-104X	CER.CAPACITOR	0.1 16V
CN1	QGF0508F2-40X	CONNECTOR	40PIN
TP1	NNZ0009-001X	TEST POINT	
K1	NQR0269-004X	FERRITE BEADS	
K2	NQR0269-004X	FERRITE BEADS	
K3	NQR0269-004X	FERRITE BEADS	
K4	NQR0269-004X	FERRITE BEADS	
K5	NQR0269-004X	FERRITE BEADS	

6.2 ISG BOARD ASSEMBLY PARTS LIST 02

CK269800B2 02

Symbol No.	Part No.	Part Name	Description
SK1	QNV0027-010	IC SOCKET	FOR IC1
IC2	AD9849AKST-W	I.C.(M)	ANALOG DEVICES
IC3	MN3112SA-X	I.C.(M)	MATSUSHITA
Q1	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q2	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
D1	MA142A-X	DIODE	MATSUSHITA
R1	NRSA63J-105X	M.G.RESISTOR	1M 1/16W
R5	NRSA63J-682X	M.G.RESISTOR	6.8k 1/16W
R6	NRSA63J-822X	M.G.RESISTOR	8.2k 1/16W
R7	NRSA63J-822X	M.G.RESISTOR	8.2k 1/16W
R12	NRSA63J-104X	M.G.RESISTOR	100k 1/16W
R14	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R15	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R63	NRSA63J-821X	M.G.RESISTOR	820 1/16W
RA1	NRZ0015-101X	RESISTOR ARRAY	100
RA2	NRZ0015-101X	RESISTOR ARRAY	100
RA3	NRZ0015-101X	RESISTOR ARRAY	100
C1	NBE41CM-106X	TAN.CAPACITOR	10 16V
C2	NBE21AM-106X	TAN.CAPACITOR	10 10V
C3	NBE21AM-106X	TAN.CAPACITOR	10 10V
C4	NBE41VM-335X	TAN.CAPACITOR	3.3 35V
C5	NBE51EM-106X	TAN.CAPACITOR	10 25V
C6	NBE41CM-106X	TAN.CAPACITOR	10 16V
C7	NBE21AM-106X	TAN.CAPACITOR	10 10V
C8	NBE91CM-105X	TAN.CAPACITOR	1 16V
C9	NBE91CM-105X	TAN.CAPACITOR	1 16V
C12	NBE21AM-106X	TAN.CAPACITOR	10 10V
C13	NBE91CM-105X	TAN.CAPACITOR	1 16V
C14	NBE41VM-335X	TAN.CAPACITOR	3.3 35V
C15	NCB11HK-224X	CER.CAPACITOR	0.22 50V
C16	NBE51EM-106X	TAN.CAPACITOR	10 25V
C17	NBE41VM-335X	TAN.CAPACITOR	3.3 35V
C18	NBE51EM-106X	TAN.CAPACITOR	10 25V
C51	NCB31EK-473X	CER.CAPACITOR	0.047 25V
C52	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C53	NCB11EK-105X	CER.CAPACITOR	1 25V
C54	NCB31EK-473X	CER.CAPACITOR	0.047 25V
C55	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C56	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C57	NCB31EK-473X	CER.CAPACITOR	0.047 25V
C61	NCB11EK-105X	CER.CAPACITOR	1 25V
C62	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C63	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C64	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C65	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C66	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C67	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C68	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C69	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C70	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C71	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C72	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C73	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C74	NCB31CK-104X	CER.CAPACITOR	0.1 16V
CN2	QGF0508F1-40X	CONNECTOR	40PIN
TP1	NNZ0009-001X	TEST POINT	
K1	NQR0269-004X	FERRITE BEADS	
K2	NQR0269-004X	FERRITE BEADS	
K3	NQR0269-004X	FERRITE BEADS	
K4	NQR0269-004X	FERRITE BEADS	
K5	NQR0269-004X	FERRITE BEADS	

6.3 ISR BOARD ASSEMBLY PARTS LIST 03

CK269800B3 03□□□□□□

Symbol No.	Part No.	Part Name	Description	
SK1	QNV0027-010	IC SOCKET	FOR IC1	
IC2	AD9849AKST-W	I.C.(M)	ANALOG DEVICES	
IC3	MN3112SA-X	I.C.(M)	MATSUSHITA	
Q1	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA	
Q2	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA	
D1	MA142A-X	DIODE	MATSUSHITA	
R1	NRSA63J-105X	M.G.RESISTOR	1M	1/16W
R5	NRSA63J-682X	M.G.RESISTOR	6.8k	1/16W
R6	NRSA63J-822X	M.G.RESISTOR	8.2k	1/16W
R7	NRSA63J-822X	M.G.RESISTOR	8.2k	1/16W
R12	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R14	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R15	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R63	NRSA63J-821X	M.G.RESISTOR	820	1/16W
RA1	NRZ0015-101X	RESISTOR ARRAY	100	
RA2	NRZ0015-101X	RESISTOR ARRAY	100	
RA3	NRZ0015-101X	RESISTOR ARRAY	100	
C1	NBE41CM-106X	TAN.CAPACITOR	10	16V
C2	NBE21AM-106X	TAN.CAPACITOR	10	10V
C3	NBE21AM-106X	TAN.CAPACITOR	10	10V
C4	NBE41VM-335X	TAN.CAPACITOR	3.3	35V
C5	NBE51EM-106X	TAN.CAPACITOR	10	25V
C6	NBE41CM-106X	TAN.CAPACITOR	10	16V
C7	NBE21AM-106X	TAN.CAPACITOR	10	10V
C8	NBE91CM-105X	TAN.CAPACITOR	1	16V
C9	NBE91CM-105X	TAN.CAPACITOR	1	16V
C12	NBE21AM-106X	TAN.CAPACITOR	10	10V
C13	NBE91CM-105X	TAN.CAPACITOR	1	16V
C14	NBE41VM-335X	TAN.CAPACITOR	3.3	35V
C15	NCB11HK-224X	CER.CAPACITOR	0.22	50V
C16	NBE51EM-106X	TAN.CAPACITOR	10	25V
C17	NBE41VM-335X	TAN.CAPACITOR	3.3	35V
C18	NBE51EM-106X	TAN.CAPACITOR	10	25V
C51	NCB31EK-473X	CER.CAPACITOR	0.047	25V
C52	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C53	NCB11EK-105X	CER.CAPACITOR	1	25V
C54	NCB31EK-473X	CER.CAPACITOR	0.047	25V
C55	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C56	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C57	NCB31EK-473X	CER.CAPACITOR	0.047	25V
C61	NCB11EK-105X	CER.CAPACITOR	1	25V
C62	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C63	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C64	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C65	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C66	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C67	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C68	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C69	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C70	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C71	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C72	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C73	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C74	NCB31CK-104X	CER.CAPACITOR	0.1	16V
CN3	QGF0508F1-40X	CONNECTOR	40PIN	
TP1	NNZ0009-001X	TEST POINT		
K1	NQR0269-004X	FERRITE BEADS		
K2	NQR0269-004X	FERRITE BEADS		
K3	NQR0269-004X	FERRITE BEADS		
K4	NQR0269-004X	FERRITE BEADS		
K5	NQR0269-004X	FERRITE BEADS		

6.4 TGDF BOARD ASSEMBLY PARTS LIST 04

CK269800B4 04□□□□□□

Symbol No.	Part No.	Part Name	Description	
IC1	XCS30XL-4TQ144C	I.C.(M)	XLINX	
IC2	TLC2933IPW-X	I.C.(M)	TEXAS	
IC3	ICS570B-X	I.C.(M)	ICS	
IC4	MM1573AN-X	I.C.(M)	MITSUMI	
IC5	MM1573AN-X	I.C.(M)	MITSUMI	
IC6	TC7W34FU-X	I.C.(M)	TOSHIBA	
IC7	SN74AHC245DGV-X	I.C.(M)	TEXAS	
R1	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R2	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R4	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R5	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R6	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R7	NRSA63J-392X	M.G.RESISTOR	3.9k	1/16W
R9	NRSA63J-242X	M.G.RESISTOR	2.4k	1/16W
R10	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R11	NRSA63J-561X	M.G.RESISTOR	560	1/16W
R13	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R15	NRSA63J-220X	M.G.RESISTOR	22	1/16W
R16	NRSA63J-220X	M.G.RESISTOR	22	1/16W
R17	NRSA63J-220X	M.G.RESISTOR	22	1/16W
R18	NRSA63J-220X	M.G.RESISTOR	22	1/16W
R19	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R20	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R21	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R22	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R23	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R24	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R25	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R26	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R28	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R29	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R30	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R31	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R34	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R35	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R36	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R37	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R38	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R39	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R40	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R41	NRSA63J-100X	M.G.RESISTOR	10	1/16W
RA1	NRZ0015-101X	RESISTOR ARRAY	100	
RA2	NRZ0015-101X	RESISTOR ARRAY	100	
RA3	NRZ0015-101X	RESISTOR ARRAY	100	
C1	NBE41VM-335X	TAN.CAPACITOR	3.3	35V
C2	NBE51EM-106X	TAN.CAPACITOR	10	25V
C3	NBE41CM-106X	TAN.CAPACITOR	10	16V
C4	NBE21AM-106X	TAN.CAPACITOR	10	10V
C5	NBE21AM-106X	TAN.CAPACITOR	10	10V
C6	NBE21AM-106X	TAN.CAPACITOR	10	10V
C7	NBE21CM-105X	TAN.CAPACITOR	1	16V
C8	NBE21AM-106X	TAN.CAPACITOR	10	10V
C9	NBE21AM-106X	TAN.CAPACITOR	10	10V
C10	NBE21AM-106X	TAN.CAPACITOR	10	10V
C21	NCB11EK-105X	CER.CAPACITOR	1	25V
C22	NCB11EK-105X	CER.CAPACITOR	1	25V
C23	NCB11EK-105X	CER.CAPACITOR	1	25V
C24	NCB11EK-105X	CER.CAPACITOR	1	25V
C25	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C26	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C27	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C28	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C29	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C30	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C31	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C32	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C33	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C34	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C35	NCB31CK-104X	CER.CAPACITOR	0.1	16V

Symbol No.	Part No.	Part Name	Description
C36	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C37	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C38	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C39	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C41	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C42	NCB31CK-104X	CER.CAPACITOR	0.1 16V
LC1	EXC-CET471U	LC FILTER	
CN1	QGF0508C1-40W	CONNECTOR	40PIN
CN2	QGF0508C1-40W	CONNECTOR	40PIN
CN3	QGF0508C1-40W	CONNECTOR	40PIN
CN4	QGF0508F1-50X	CONNECTOR	50PIN
CN16	QGA1201F2-07X	CONNECTOR	7PIN
K1	NQR0269-004X	FERRITE BEADS	
K2	NQR0269-004X	FERRITE BEADS	
K9	NQR0269-004X	FERRITE BEADS	
TB1	PGZ02228	EARTH LUG	
TB2	PGZ02228	EARTH LUG	
TB3	PGZ02228	EARTH LUG	
TB4	PGZ02228	EARTH LUG	

6.5 DBCP BOARD ASSEMBLY PARTS LIST 0 5

CK2699N0B1(U)
CK2699P0B1(E)

0 5

Symbol No.	Part No.	Part Name	Description
IC201	SIP1250LC	I.C.(M)	NEWCORE
IC202	MT48LC2M32B2-X	I.C.(M)	MICRON
IC203	MM1573DN-X	I.C.(M)	MITSUMI
IC204	MK3754D-X	I.C.(M)	ICS
IC205	SN74AHC1G04K-X	I.C.(M)	TEXAS
IC206	SN74AHC245DGV-X	I.C.(M)	TEXAS
IC207	SN74AHC245DGV-X	I.C.(M)	TEXAS
IC301	XCS30XL-4TQ144C	I.C.(M)	XILINX
IC401	XC95144X10T-008	I.C.(M)	XILINX
IC402	PLSC1442-	I.C.(M)	MBV200BC90PT (U)
	PLSC1443-	I.C.(M)	MBV200BC90PT (E)
IC501	TC7W53FU-X	I.C.(M)	TOSHIBA
IC503	NJM2538V-X	I.C.(M)	JRC
IC504	TC7W08FU-X	I.C.(M)	TOSHIBA
IC505	TC74VHC32FT-X	I.C.(M)	TOSHIBA
IC506	SN74AHC1G04K-X	I.C.(M)	TEXAS
IC507	TA75S01F-X	I.C.(M)	TOSHIBA
IC601	MM1573AN-X	I.C.(M)	MITSUMI
IC602	AK4550VT-X	I.C.(M)	ASAHI KASEI
IC603	AK4363VF-X	I.C.(M)	ASAHI KASEI
IC701	PLSC1441-	I.C.(M)	HD64F2238RFA13
IC702	TC7W34FU-X	I.C.(M)	TOSHIBA
IC703	TC7W34FU-X	I.C.(M)	TOSHIBA
IC704	TA75S01F-X	I.C.(M)	TOSHIBA
IC705	SN74LV138ADGV-X	I.C.(M)	TEXAS
IC708	TC74HC4066AFT-X	I.C.(M)	TOSHIBA
IC801	PLSC1440-	I.C.(M)	HD64F2238RFA13
IC802	SN74LV165ADGV-X	I.C.(M)	TEXAS
IC803	SN74AHC1G32K-X	I.C.(M)	TEXAS
IC804	TC7W34FU-X	I.C.(M)	TOSHIBA
IC805	RN5VD26AA-X	I.C.(M)	RICOH
IC806	UPD6467GR-533-X	I.C.(M)	NEC
IC807	UPD6467GR-533-X	I.C.(M)	NEC
IC808	SN74LV157APW-X	I.C.(M)	TEXAS
IC810	M62366GP-X	I.C.(M)	MITSUBISHI
IC811	M95320-WMN6-X	I.C.(M)	MITSUBISHI
IC812	TC7W126FU-X	I.C.(M)	TOSHIBA
IC813	RS5C314-X	I.C.(M)	RICOH
IC814	MM1573AN-X	I.C.(M)	MITSUMI
IC816	SN74AHC1G04K-X	I.C.(M)	TEXAS
IC817	TC74VHC32FT-X	I.C.(M)	TOSHIBA
Q401	DTA124EUA-X	TRANSISTOR	ROHM
Q501	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q502	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q504	2SK3349DN-W	FET	HITACHI
Q505	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q506	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA (U)
Q507	DTC124EUA-X	TRANSISTOR	ROHM (U)
Q508	DTA124EUA-X	TRANSISTOR	ROHM (U)
Q510	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q511	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q514	DTC124EUA-X	TRANSISTOR	ROHM
Q515	DTA124EUA-X	TRANSISTOR	ROHM
Q516	2SK3349DN-W	FET	HITACHI
Q517	DTC124EUA-X	TRANSISTOR	ROHM
Q518	2SA1790/BC/-X	TRANSISTOR	MATSUSHITA
Q521	2SA1790/BC/-X	TRANSISTOR	MATSUSHITA
Q522	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q523	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q524	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q530	2SA1790/BC/-X	TRANSISTOR	MATSUSHITA
Q531	2SA1790/BC/-X	TRANSISTOR	MATSUSHITA
Q532	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q533	2SK3349DN-W	FET	HITACHI
Q534	2SK3349DN-W	FET	HITACHI
Q535	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q536	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q537	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q538	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q701	DTA124EUA-X	TRANSISTOR	ROHM
Q702	DTC124EUA-X	TRANSISTOR	ROHM
Q703	DTA124EUA-X	TRANSISTOR	ROHM

Symbol No.	Part No.	Part Name	Description	
Q704	DTC124EUA-X	TRANSISTOR	ROHM	
Q802	DTA124EUA-X	TRANSISTOR	ROHM	
Q803	DTC124EUA-X	TRANSISTOR	ROHM	
Q804	DTA124EUA-X	TRANSISTOR	ROHM	
Q805	DTC124EUA-X	TRANSISTOR	ROHM	
Q806	DTA124EUA-X	TRANSISTOR	ROHM	
Q807	DTC124EUA-X	TRANSISTOR	ROHM	
Q808	DTC124EUA-X	TRANSISTOR	ROHM	
Q809	DTA124EUA-X	TRANSISTOR	ROHM	
Q810	DTC124EUA-X	TRANSISTOR	ROHM	
Q811	DTA124EUA-X	TRANSISTOR	ROHM	
Q812	DTC124EUA-X	TRANSISTOR	ROHM	
Q813	DTC124EUA-X	TRANSISTOR	ROHM	
Q815	DTA124EUA-X	TRANSISTOR	ROHM	
Q816	2SC4617/RS/-X	TRANSISTOR	ROHM	
Q817	2SK3349DN-W	FET	HITACHI	
D501	HZM5.1NB2-X	ZENER DIODE	HITACHI	
D502	MA143A-X	DIODE	MATSUSHITA	
D503	HZM5.1NB2-X	ZENER DIODE	HITACHI	
D504	HZM6.8NB2-X	ZENER DIODE	HITACHI	
D505	HZM6.8NB2-X	ZENER DIODE	HITACHI	
D701	HZM3.3NB1-X	ZENER DIODE	HITACHI	
D702	HZM3.3NB1-X	ZENER DIODE	HITACHI	
D703	HZM5.1NB2-X	ZENER DIODE	HITACHI	
D704	HZM5.1NB2-X	ZENER DIODE	HITACHI	
D705	HZM3.3NB1-X	ZENER DIODE	HITACHI	
D706	HZM12NB2-X	ZENER DIODE	HITACHI	
D707	HZM12NB2-X	ZENER DIODE	HITACHI	
D708	HZM12NB2-X	ZENER DIODE	HITACHI	
D709	HZM18NB2-X	ZENER DIODE	HITACHI	
D710	MA741WA-X	DIODE	MATSUSHITA	
D801	DAN202U-X	DIODE	ROHM	
D802	MA8100/L/-X	ZENER DIODE	MATSUSHITA	
D803	MA741WK-X	DIODE	MATSUSHITA	
D804	MA741WK-X	DIODE	MATSUSHITA	
D805	HZM5.1NB2-X	ZENER DIODE	HITACHI	
D806	DAN202U-X	DIODE	ROHM	
D807	HZM10NB2-X	ZENER DIODE	HITACHI	
LD401	SML-210MT/MN/-X	L.E.D.		
R103	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R104	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R105	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R106	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R107	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R108	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R109	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R110	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R111	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R112	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R113	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R114	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R115	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R116	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R117	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R118	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R119	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R120	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R121	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R122	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R123	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R124	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R125	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R126	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R127	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R128	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R129	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R132	NRSA63J-100X	M.G.RESISTOR	10	1/16W
R133	NRSA63J-100X	M.G.RESISTOR	10	1/16W
R201	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W

Symbol No.	Part No.	Part Name	Description	
R202	NRSA63J-220X	M.G.RESISTOR	22	1/16W
R203	NRSA63J-220X	M.G.RESISTOR	22	1/16W
R204	NRSA63J-220X	M.G.RESISTOR	22	1/16W
R207	NRSA63J-222X	M.G.RESISTOR	2.2k	1/16W
R208	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R209	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R210	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R211	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R212	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R213	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R214	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R215	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R216	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R217	NRSA63J-152X	M.G.RESISTOR	1.5k	1/16W
R218	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R219	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R220	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R221	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R222	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R223	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R224	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R225	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R226	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R227	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R228	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R230	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R231	NRSA63J-220X	M.G.RESISTOR	22	1/16W
R232	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R234	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R235	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R236	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R237	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R239	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R240	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R241	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R243	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R244	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R245	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R246	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R301	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R302	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R303	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R304	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R305	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R306	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R307	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R308	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R309	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R310	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R311	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R312	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R313	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R314	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R315	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R316	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R318	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R319	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R320	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R321	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R322	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R323	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R324	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R325	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R326	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R327	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R328	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R329	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R330	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R335	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R336	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R337	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R340	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W

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Symbol No.	Part No.	Part Name	Description
R401	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R403	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R404	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R405	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R407	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R408	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R409	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R410	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R411	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R412	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R413	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R501	NRSA63J-750X	M.G.RESISTOR	75 1/16W
R502	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R503	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R504	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R505	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R506	NRSA63J-750X	M.G.RESISTOR	75 1/16W
R507	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R508	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R509	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R510	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R512	NRSA63J-151X	M.G.RESISTOR	150 1/16W
R513	NRSA63J-151X	M.G.RESISTOR	150 1/16W
R514	NRSA63J-123X	M.G.RESISTOR	12k 1/16W
R515	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R516	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R517	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R518	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R520	NRSA63J-103X	M.G.RESISTOR	10k 1/16W (U)
R521	NRSA63J-104X	M.G.RESISTOR	100k 1/16W (U)
R523	NRSA63J-333X	M.G.RESISTOR	33k 1/16W
R524	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R525	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R527	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R528	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R529	NRSA63J-331X	M.G.RESISTOR	330 1/16W
R531	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R532	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R533	NRSA63J-182X	M.G.RESISTOR	1.8k 1/16W
R534	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R535	NRSA63J-151X	M.G.RESISTOR	150 1/16W
R536	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R537	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R540	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R541	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R542	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R543	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R545	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R546	NRSA63J-105X	M.G.RESISTOR	1M 1/16W
R547	NRSA63J-473X	M.G.RESISTOR	47k 1/16W
R548	NRSA63J-473X	M.G.RESISTOR	47k 1/16W
R550	NRSA63J-123X	M.G.RESISTOR	12k 1/16W
R551	NRSA63J-563X	M.G.RESISTOR	56k 1/16W (U)
R552	NRSA63J-272X	M.G.RESISTOR	2.7k 1/16W
R554	NRSA63J-151X	M.G.RESISTOR	150 1/16W
R555	NRSA63J-151X	M.G.RESISTOR	150 1/16W
R556	NRSA63J-123X	M.G.RESISTOR	12k 1/16W
R557	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R558	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R559	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R560	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R561	NRSA63J-333X	M.G.RESISTOR	33k 1/16W
R562	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R563	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R565	NRSA63J-224X	M.G.RESISTOR	220k 1/16W
R566	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R567	NRSA63J-391X	M.G.RESISTOR	390 1/16W
R568	NRSA63J-121X	M.G.RESISTOR	120 1/16W
R570	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R571	NRSA63J-183X	M.G.RESISTOR	18k 1/16W
R572	NRSA63J-225X	M.G.RESISTOR	2.2M 1/16W
R573	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R575	NRSA63J-391X	M.G.RESISTOR	390 1/16W

Symbol No.	Part No.	Part Name	Description
R576	NRSA63J-121X	M.G.RESISTOR	120 1/16W
R579	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R582	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R585	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R588	NRSA63J-821X	M.G.RESISTOR	820 1/16W
R589	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R591	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R592	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R593	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R594	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R595	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R596	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R597	NRSA63J-182X	M.G.RESISTOR	1.8k 1/16W
R598	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R599	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R601	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R602	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R603	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R604	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R605	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R606	NRSA63J-512X	M.G.RESISTOR	5.1k 1/16W
R607	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R608	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R701	NRSA63J-332X	M.G.RESISTOR	3.3k 1/16W
R702	NRSA63J-332X	M.G.RESISTOR	3.3k 1/16W
R709	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R710	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R711	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R712	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R713	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R714	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R715	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R716	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R717	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R718	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R719	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R720	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R721	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R722	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R723	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R724	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R725	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R726	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R727	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R728	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R729	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R730	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R731	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R733	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R734	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R735	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R736	NRSA63J-223X	M.G.RESISTOR	22k 1/16W (E)
R737	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W (U)
R738	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R739	NRSA63J-124X	M.G.RESISTOR	120k 1/16W
R740	NRSA63J-124X	M.G.RESISTOR	120k 1/16W
R741	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R744	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R745	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R752	NRSA63J-622X	M.G.RESISTOR	6.2k 1/16W
R753	NRSA63J-622X	M.G.RESISTOR	6.2k 1/16W
R754	NRSA63J-392X	M.G.RESISTOR	3.9k 1/16W
R755	NRSA63J-392X	M.G.RESISTOR	3.9k 1/16W
R757	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R758	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R759	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R760	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R761	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R762	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R763	NRSA63J-392X	M.G.RESISTOR	3.9k 1/16W
R764	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R765	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R766	NRSA63J-102X	M.G.RESISTOR	1k 1/16W

Symbol No.	Part No.	Part Name	Description
R801	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R802	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R803	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R804	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R805	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R806	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R807	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R808	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R809	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R810	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R811	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R812	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R813	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R814	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R815	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R816	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R817	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R818	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R819	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R820	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R821	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R822	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R823	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R824	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R825	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R826	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R827	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R828	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R829	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R830	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R831	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R832	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R833	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R834	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R835	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R836	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R837	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R838	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R839	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R841	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R843	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R845	NRSA63J-332X	M.G.RESISTOR	3.3k 1/16W
R846	NRSA63J-332X	M.G.RESISTOR	3.3k 1/16W
R847	NRSA63J-332X	M.G.RESISTOR	3.3k 1/16W
R848	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R849	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R850	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R851	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R852	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R854	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R855	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R856	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R857	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R858	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R859	NRSA63J-474X	M.G.RESISTOR	470k 1/16W
R860	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R861	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R862	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R863	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R864	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R865	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R866	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R875	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R876	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R877	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R878	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R879	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R880	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R881	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R882	NRSA63J-271X	M.G.RESISTOR	270 1/16W
R883	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R884	NRSA63J-622X	M.G.RESISTOR	6.2k 1/16W
R885	NRSA63J-561X	M.G.RESISTOR	560 1/16W
R886	NRSA63J-332X	M.G.RESISTOR	3.3k 1/16W
R887	NRSA63J-752X	M.G.RESISTOR	7.5k 1/16W
R888	NRSA63J-123X	M.G.RESISTOR	12k 1/16W
R889	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R890	NRSA63J-331X	M.G.RESISTOR	330 1/16W
R891	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R892	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R897	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R900	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R903	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R904	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R905	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R906	NRSA63J-332X	M.G.RESISTOR	3.3k 1/16W
R907	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R908	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R910	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R911	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R912	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R913	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R914	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R915	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R916	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R923	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R924	NRSA63J-332X	M.G.RESISTOR	3.3k 1/16W
R925	NRSA63J-104X	M.G.RESISTOR	100k 1/16W (U)
	NRSA63J-105X	M.G.RESISTOR	1M 1/16W (E)
R926	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R930	NRSA63J-333X	M.G.RESISTOR	33k 1/16W
R931	NRSA63J-683X	M.G.RESISTOR	68k 1/16W
R932	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R933	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R934	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R936	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R937	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R980	NRSA63J-270X	M.G.RESISTOR	27 1/16W
R981	NRSA63J-270X	M.G.RESISTOR	27 1/16W
R982	NRSA63J-562X	M.G.RESISTOR	5.6k 1/16W
R985	NRSA63J-270X	M.G.RESISTOR	27 1/16W
R986	NRSA63J-270X	M.G.RESISTOR	27 1/16W
R987	NRSA63J-562X	M.G.RESISTOR	5.6k 1/16W
R988	NRSA63J-332X	M.G.RESISTOR	3.3k 1/16W (U)
R992	NRSA63J-392X	M.G.RESISTOR	3.9k 1/16W
RA301	NRZ0015-101X	RESISTOR ARRAY	100
RA302	NRZ0015-101X	RESISTOR ARRAY	100
RA303	NRZ0015-101X	RESISTOR ARRAY	100
RA304	NRZ0015-101X	RESISTOR ARRAY	100
RA305	NRZ0015-101X	RESISTOR ARRAY	100
RA306	NRZ0015-101X	RESISTOR ARRAY	100
RA307	NRZ0015-101X	RESISTOR ARRAY	100
C101	NBE21AM-106X	TAN.CAPACITOR	10 10V
C102	NBE21AM-106X	TAN.CAPACITOR	10 10V
C103	NCB11AK-106X	CER.CAPACITOR	10 10V
C104	NCB11AK-106X	CER.CAPACITOR	10 10V
C105	NCB11AK-106X	CER.CAPACITOR	10 10V
C106	NCB11AK-106X	CER.CAPACITOR	10 10V
C107	NCB11AK-106X	CER.CAPACITOR	10 10V
C108	NCB11AK-106X	CER.CAPACITOR	10 10V
C109	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C201	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C202	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C203	NCB31HK-103X	CER.CAPACITOR	0.01 50V
C204	NBE21AM-106X	TAN.CAPACITOR	10 10V
C205	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C206	NDC31HJ-120X	CER.CAPACITOR	12p 50V
C207	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C208	NDC31HJ-120X	CER.CAPACITOR	12p 50V
C209	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C210	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C211	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C212	NCB31CK-104X	CER.CAPACITOR	0.1 16V

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Symbol No.	Part No.	Part Name	Description	
C213	NCB11AK-106X	CER.CAPACITOR	10	10V
C214	NCB11AK-106X	CER.CAPACITOR	10	10V
C215	NBE21AM-106X	TAN.CAPACITOR	10	10V
C216	NBE21AM-106X	TAN.CAPACITOR	10	10V
C217	NBE21AM-106X	TAN.CAPACITOR	10	10V
C218	NBE21AM-106X	TAN.CAPACITOR	10	10V
C219	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C220	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C221	NCB11AK-106X	CER.CAPACITOR	10	10V
C222	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C223	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C224	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C225	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C226	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C227	NBE21AM-106X	TAN.CAPACITOR	10	10V
C228	NBE21AM-106X	TAN.CAPACITOR	10	10V
C229	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C230	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C231	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C232	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C233	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C234	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C235	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C236	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C237	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C238	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C239	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C240	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C241	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C242	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C243	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C244	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C245	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C246	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C247	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C248	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C249	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C250	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C251	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C252	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C253	NBE21AM-106X	TAN.CAPACITOR	10	10V
C254	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C255	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C256	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C257	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C258	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C259	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C260	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C261	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C262	NBE21AM-106X	TAN.CAPACITOR	10	10V
C263	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C264	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C265	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C266	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C301	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C302	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C303	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C304	NBE21AM-106X	TAN.CAPACITOR	10	10V
C305	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C306	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C307	NBE21AM-106X	TAN.CAPACITOR	10	10V
C308	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C401	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C402	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C403	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C404	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C405	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C406	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C407	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C408	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C501	NDC31HJ-220X	CER.CAPACITOR	22p	50V
C502	NDC31HJ-470X	CER.CAPACITOR	47p	50V
C503	NDC31HJ-220X	CER.CAPACITOR	22p	50V
C504	NDC31HJ-470X	CER.CAPACITOR	47p	50V
C509	NDC31HJ-150X	CER.CAPACITOR	15p	50V
C527	NDC31HJ-150X	CER.CAPACITOR	15p	50V
C528	NBE41CM-156X	TAN.CAPACITOR	15	16V
C529	NBE41CM-156X	TAN.CAPACITOR	15	16V
C530	NCB11AK-106X	CER.CAPACITOR	10	10V
C531	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C532	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C533	NRSA63J-0R0X	M.G.RESISTOR	0p	
C534	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C535	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C536	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C537	NCB11AK-106X	CER.CAPACITOR	10	10V
C538	NBE60JM-337X	TAN.CAPACITOR	330	6.3V
C539	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C541	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C542	NCB11AK-106X	CER.CAPACITOR	10	10V
C543	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C544	NCB11AK-106X	CER.CAPACITOR	10	10V
C545	NBE60JM-337X	TAN.CAPACITOR	330	6.3V
C546	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C550	NCB31CK-104X	CER.CAPACITOR	0.1	16V (U)
C551	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C552	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C553	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C554	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C555	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C556	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C557	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C558	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C560	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C601	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C602	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C603	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C604	NBE21AM-106X	TAN.CAPACITOR	10	10V
C605	NBE21AM-106X	TAN.CAPACITOR	10	10V
C606	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C607	NBE21AM-106X	TAN.CAPACITOR	10	10V
C608	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C609	NBE21AM-106X	TAN.CAPACITOR	10	10V
C610	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C611	NCB31AK-224X	CER.CAPACITOR	0.22	10V
C612	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C613	NBE21AM-106X	TAN.CAPACITOR	10	10V
C614	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C615	NBE21AM-106X	TAN.CAPACITOR	10	10V
C616	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C617	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C701	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C702	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C703	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C704	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C705	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C706	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C707	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C708	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C709	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C710	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C713	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C714	NBE51VM-475X	TAN.CAPACITOR	4.7	35V
C715	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C716	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C717	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C718	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C719	NBE21AM-106X	TAN.CAPACITOR	10	10V
C720	NBE21AM-106X	TAN.CAPACITOR	10	10V
C722	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C723	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C801	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C802	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C803	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C804	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C805	NCB31CK-104X	CER.CAPACITOR	0.1	16V

Symbol No.	Part No.	Part Name	Description
C808	NDC31HJ-220X	CER.CAPACITOR	22p 50V
C809	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C810	NCB31HK-103X	CER.CAPACITOR	0.01 50V
C811	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C812	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C814	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C815	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C818	NCB31HK-103X	CER.CAPACITOR	0.01 50V
C819	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C820	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C821	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C822	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C823	NDC31HJ-120X	CER.CAPACITOR	12p 50V
C824	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C825	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C826	NBE21AM-106X	TAN.CAPACITOR	10 10V
C827	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C828	NDC31HJ-101X	CER.CAPACITOR	100p 50V
C829	NBE21AM-106X	TAN.CAPACITOR	10 10V
C830	NBE21AM-106X	TAN.CAPACITOR	10 10V
C831	NBE21VM-105X	TAN.CAPACITOR	1 35V
C832	NCB11CK-105X	CER.CAPACITOR	1 16V
C833	NCB31CK-104X	CER.CAPACITOR	0.1 16V
L504	NQL024J-220X	COIL	22uH
L508	NQL024J-220X	COIL	22uH
LC101	EXC-CET471U	LC FILTER	
LC102	EXC-CET471U	LC FILTER	
LC103	EXC-CET471U	LC FILTER	
LC104	EXC-CET471U	LC FILTER	
LC201	EXC-CET471U	LC FILTER	
LC202	EXC-CET471U	LC FILTER	
LC203	EXC-CET471U	LC FILTER	
LC301	EXC-CET471U	LC FILTER	
LC601	EXC-CET471U	LC FILTER	
LC602	EXC-CET471U	LC FILTER	
LC701	EXC-CET471U	LC FILTER	
LC801	EXC-CET471U	LC FILTER	
X201	NAX0394-001X	CRYSTAL	13.5MHz
X701	NAX0536-001X	CRYSTAL	13.5MHz
X801	NAX0536-001X	CRYSTAL	13.5MHz
X802	NAX0325-001X	CRYSTAL	32.768kHz
S401	NSW0005-001X	TACT SWITCH	
S402	NSW0022-001X	DIP SWITCH	
CN4	QGF0508F2-50X	CONNECTOR	50PIN
CN5	QGA1201F2-06X	CONNECTOR	6PIN
CN6	QGF1012F1-10X	CONNECTOR	10PIN
CN8	QGA1201F2-09X	CONNECTOR	9PIN
CN9	QGA1201F2-12X	CONNECTOR	12PIN
CN14	QGF0508F1-30X	CONNECTOR	30PIN
CN26	QGF0508F1-20X	CONNECTOR	20PIN
CN27	QGF0508F1-33X	CONNECTOR	33PIN
CN33	QGF1012F1-10X	CONNECTOR	10PIN
CN34	QGF1012F1-06X	CONNECTOR	6PIN
CN35	QGA1201F2-10X	CONNECTOR	10PIN
CN102	QGF0508F2-30X	CONNECTOR	30PIN
CN103	QGF0508F2-45X	CONNECTOR	45PIN
CN401	QGB0811L1-10X	CONNECTOR	10PIN
CN801	QGB0502L1-40X	CONNECTOR	40PIN
TP101	NNZ0009-001X	TEST POINT	, x28
BT801	QAB0020-001	LI BATTERY	

Symbol No.	Part No.	Part Name	Description
K201	NQR0269-004X	FERRITE BEADS	
K203	NQR0269-004X	FERRITE BEADS	
K204	NQR0269-004X	FERRITE BEADS	
K205	NQR0269-004X	FERRITE BEADS	
K206	NQR0269-004X	FERRITE BEADS	
K207	NQR0269-004X	FERRITE BEADS	
K401	NQR0269-004X	FERRITE BEADS	
K402	NQR0269-004X	FERRITE BEADS	
K501	NQR0269-004X	FERRITE BEADS	
K502	NQR0269-004X	FERRITE BEADS	
K503	NQR0269-004X	FERRITE BEADS	
K701	NQR0269-004X	FERRITE BEADS	
K702	NQR0269-004X	FERRITE BEADS	
K703	NQR0269-004X	FERRITE BEADS	
K801	NQR0269-004X	FERRITE BEADS	
K802	NQR0269-004X	FERRITE BEADS	
K803	NQR0269-004X	FERRITE BEADS	
K804	NQR0269-004X	FERRITE BEADS	
TB1	PGZ02228	EARTH LUG	
TB2	PGZ02228	EARTH LUG	

6.6 ALS BOARD ASSEMBLY PARTS LIST 06

CK270000B1 06☐☐☐☐☐☐

Symbol No.	Part No.	Part Name	Description
IC1	TC4053BF-W	I.C.(M)	TOSHIBA
IC2	NJM2068M-D-XE	I.C.(M)	JRC
IC3	NJM2068M-D-XE	I.C.(M)	JRC
IC4	TC4053BF-W	I.C.(M)	TOSHIBA
IC5	NJM2068M-D-XE	I.C.(M)	JRC
IC6	TC4W53F-X	I.C.(M)	TOSHIBA
IC7	TC4W53F-X	I.C.(M)	TOSHIBA
IC8	TC4W53F-X	I.C.(M)	TOSHIBA
IC9	TC4W53F-X	I.C.(M)	TOSHIBA
IC10	TC4S66F-X	I.C.(M)	TOSHIBA
IC11	TC4W53F-X	I.C.(M)	TOSHIBA
IC12	NJM2904M-XE	I.C.(M)	JRC
IC15	NJM2068M-D-XE	I.C.(M)	JRC
IC16	BA3314F-X	I.C.(M)	ROHM
IC17	BA3314F-X	I.C.(M)	ROHM
IC18	TC4051BF-X	I.C.(M)	TOSHIBA
IC19	TC4051BF-X	I.C.(M)	TOSHIBA
IC20	TC4S66F-X	I.C.(M)	TOSHIBA
IC21	TC4S66F-X	I.C.(M)	TOSHIBA
IC22	NJM2068M-D-XE	I.C.(M)	JRC
IC23	NJM2068M-D-XE	I.C.(M)	JRC
IC24	NJM2068M-D-XE	I.C.(M)	JRC
IC301	CXA3582R	I.C.(M)	SONY
IC501	TC4051BF-X	I.C.(M)	TOSHIBA
IC502	TC4S66F-X	I.C.(M)	TOSHIBA
IC503	TC4S66F-X	I.C.(M)	TOSHIBA
IC504	TC4S66F-X	I.C.(M)	TOSHIBA
IC505	TC4S66F-X	I.C.(M)	TOSHIBA
IC506	TC4W53F-X	I.C.(M)	TOSHIBA
IC507	NJM2068M-D-XE	I.C.(M)	JRC
IC508	TC4W53F-X	I.C.(M)	TOSHIBA
IC509	NJM2068M-D-XE	I.C.(M)	JRC
IC510	NJM2068M-D-XE	I.C.(M)	JRC
IC511	NJM2068M-D-XE	I.C.(M)	JRC
IC512	NJM2068M-D-XE	I.C.(M)	JRC
IC513	M51132FP-X	I.C.(M)	MITSUBISHI
IC514	TC4W53F-X	I.C.(M)	TOSHIBA
IC515	TC4W53F-X	I.C.(M)	TOSHIBA
IC516	M5216FP-X	I.C.(M)	MITSUBISHI
IC517	M5218AFP-X	I.C.(M)	MITSUBISHI
IC518	BA6138F-X	I.C.(M)	ROHM
IC701	SN74AHC1G14K-X	I.C.(M)	TEXAS
IC702	SN74AHC1G14K-X	I.C.(M)	TEXAS
IC703	SN74AHC2G74U-X	I.C.(M)	TEXAS
IC704	SN74LV165ADGV-X	I.C.(M)	TEXAS
IC705	SN74LV165ADGV-X	I.C.(M)	TEXAS
IC706	SN74LV165ADGV-X	I.C.(M)	TEXAS
IC707	BU4094BCFV-X	I.C.(M)	ROHM
IC708	BU4094BCFV-X	I.C.(M)	ROHM
IC709	BU4094BCFV-X	I.C.(M)	ROHM
IC710	SN74LV165ADGV-X	I.C.(M)	TEXAS
Q2	2SB1463/RST/-X	TRANSISTOR	MATSUSHITA
Q3	2SD2240/RS/-X	TRANSISTOR	MATSUSHITA
Q4	DTA124EUA-X	TRANSISTOR	ROHM
Q5	DTC124EUA-X	TRANSISTOR	ROHM
Q9	DTC124EUA-X	TRANSISTOR	ROHM
Q12	2SK1062-X	FET	TOSHIBA
Q14	2SB1463/RST/-X	TRANSISTOR	MATSUSHITA
Q15	2SD2240/RS/-X	TRANSISTOR	MATSUSHITA
Q16	DTA124EUA-X	TRANSISTOR	ROHM
Q17	DTC124EUA-X	TRANSISTOR	ROHM
Q23	DTC124EUA-X	TRANSISTOR	ROHM
Q24	2SK1062-X	FET	TOSHIBA
Q25	DTC144EUA-X	TRANSISTOR	ROHM
Q26	DTC144EUA-X	TRANSISTOR	ROHM
Q27	DTC144EUA-X	TRANSISTOR	ROHM
Q28	2SD601A/QRS/-X	TRANSISTOR	MATSUSHITA
Q29	2SD601A/QRS/-X	TRANSISTOR	MATSUSHITA
Q32	DTA124EUA-X	TRANSISTOR	ROHM
Q33	DTC144EUA-X	TRANSISTOR	ROHM
Q34	DTC144EUA-X	TRANSISTOR	ROHM

Symbol No.	Part No.	Part Name	Description
Q35	DTC144EUA-X	TRANSISTOR	ROHM
Q38	DTC144EUA-X	TRANSISTOR	ROHM
Q39	DTC144EUA-X	TRANSISTOR	ROHM
Q40	2SD2240/RS/-X	TRANSISTOR	MATSUSHITA
Q41	DTC144EUA-X	TRANSISTOR	ROHM
Q42	DTC144EUA-X	TRANSISTOR	ROHM
Q303	2SA1790/BC/-X	TRANSISTOR	MATSUSHITA
Q304	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q305	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q313	DTC144EUA-X	TRANSISTOR	ROHM
Q316	2SA1790/BC/-X	TRANSISTOR	MATSUSHITA
Q323	2SA1790/BC/-X	TRANSISTOR	MATSUSHITA
Q501	DTC144EUA-X	TRANSISTOR	ROHM
Q502	DTC144EUA-X	TRANSISTOR	ROHM
Q503	DTA124EUA-X	TRANSISTOR	ROHM
Q504	DTC144EUA-X	TRANSISTOR	ROHM
Q505	DTC144EUA-X	TRANSISTOR	ROHM
Q507	DTC144EUA-X	TRANSISTOR	ROHM
Q508	2SD601A/QRS/-X	TRANSISTOR	MATSUSHITA
Q509	2SD601A/QRS/-X	TRANSISTOR	MATSUSHITA
Q510	FMW3-X	TRANSISTOR	ROHM
Q511	DTA114EUA-X	TRANSISTOR	ROHM
Q512	DTC144EUA-X	TRANSISTOR	ROHM
Q513	DTA114EUA-X	TRANSISTOR	ROHM
Q515	2SA1790/BC/-X	TRANSISTOR	MATSUSHITA
Q516	2SJ279S-X	FET	HITACHI
Q517	DTC124EUA-X	TRANSISTOR	ROHM
Q518	2SD601A/QRS/-X	TRANSISTOR	MATSUSHITA
Q519	2SD601A/QRS/-X	TRANSISTOR	MATSUSHITA
Q701	DTC124EUA-X	TRANSISTOR	ROHM
Q702	DTC124EUA-X	TRANSISTOR	ROHM
Q703	DTC124EUA-X	TRANSISTOR	ROHM
Q704	DTC124EUA-X	TRANSISTOR	ROHM
Q705	DTC124EUA-X	TRANSISTOR	ROHM
D1	MA143A-X	DIODE	MATSUSHITA
D2	MA143A-X	DIODE	MATSUSHITA
D3	MA143A-X	DIODE	MATSUSHITA
D4	MA143A-X	DIODE	MATSUSHITA
D5	MA143A-X	DIODE	MATSUSHITA
D6	MA143A-X	DIODE	MATSUSHITA
D7	MA143A-X	DIODE	MATSUSHITA
D8	MA143A-X	DIODE	MATSUSHITA
D303	HZM3.0NB1-X	ZENER DIODE	HITACHI
D304	HZM3.9NB2-X	ZENER DIODE	HITACHI
D501	MA143A-X	DIODE	MATSUSHITA
D502	MA142WK-X	DIODE	MATSUSHITA
D505	MA143A-X	DIODE	MATSUSHITA
D506	MA143A-X	DIODE	MATSUSHITA
D507	MA143A-X	DIODE	MATSUSHITA
LD701	SML-020MVT-W	L.E.D.	
LD702	SML-020MVT-W	L.E.D.	
LD703	SML-020MVT-W	L.E.D.	
PC1	P873-25	I.C(PH COUPLER)	
R1	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R2	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R3	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R4	NRSA63J-122X	M.G.RESISTOR	1.2k 1/16W
R5	NRSA63J-122X	M.G.RESISTOR	1.2k 1/16W
R6	NRSA63J-122X	M.G.RESISTOR	1.2k 1/16W
R7	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R8	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R9	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R10	NRSA63J-122X	M.G.RESISTOR	1.2k 1/16W
R11	NRSA63J-122X	M.G.RESISTOR	1.2k 1/16W
R12	NRSA63J-122X	M.G.RESISTOR	1.2k 1/16W
R14	NRSA63J-274X	M.G.RESISTOR	270k 1/16W
R15	NRSA63J-274X	M.G.RESISTOR	270k 1/16W

Symbol No.	Part No.	Part Name	Description	
R16	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R17	NRSA63J-105X	M.G.RESISTOR	1M	1/16W
R18	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R20	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R21	NRSA63J-243X	M.G.RESISTOR	24k	1/16W
R22	NRSA63J-361X	M.G.RESISTOR	360	1/16W
R23	NRSA63J-361X	M.G.RESISTOR	360	1/16W
R24	NRSA63J-222X	M.G.RESISTOR	2.2k	1/16W
R25	NRSA63J-222X	M.G.RESISTOR	2.2k	1/16W
R26	NRSA63J-243X	M.G.RESISTOR	24k	1/16W
R27	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R28	NRSA63J-750X	M.G.RESISTOR	75	1/16W
R29	NRSA63J-622X	M.G.RESISTOR	6.2k	1/16W
R33	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R34	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R35	NRSA63J-620X	M.G.RESISTOR	62	1/16W
R36	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R37	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R38	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R39	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R40	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R41	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R42	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R43	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R44	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R46	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R47	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R48	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R49	NRSA63J-122X	M.G.RESISTOR	1.2k	1/16W
R50	NRSA63J-122X	M.G.RESISTOR	1.2k	1/16W
R51	NRSA63J-122X	M.G.RESISTOR	1.2k	1/16W
R52	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R53	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R54	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R55	NRSA63J-122X	M.G.RESISTOR	1.2k	1/16W
R56	NRSA63J-122X	M.G.RESISTOR	1.2k	1/16W
R57	NRSA63J-122X	M.G.RESISTOR	1.2k	1/16W
R59	NRSA63J-274X	M.G.RESISTOR	270k	1/16W
R60	NRSA63J-274X	M.G.RESISTOR	270k	1/16W
R61	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R62	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R63	NRSA63J-105X	M.G.RESISTOR	1M	1/16W
R64	NRSA63J-243X	M.G.RESISTOR	24k	1/16W
R65	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R66	NRSA63J-361X	M.G.RESISTOR	360	1/16W
R67	NRSA63J-361X	M.G.RESISTOR	360	1/16W
R68	NRSA63J-243X	M.G.RESISTOR	24k	1/16W
R69	NRSA63J-222X	M.G.RESISTOR	2.2k	1/16W
R70	NRSA63J-222X	M.G.RESISTOR	2.2k	1/16W
R71	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R72	NRSA63J-750X	M.G.RESISTOR	75	1/16W
R73	NRSA63J-622X	M.G.RESISTOR	6.2k	1/16W
R77	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R78	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R79	NRSA63J-620X	M.G.RESISTOR	62	1/16W
R80	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R81	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R82	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R83	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R84	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R85	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R86	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R87	NRSA63J-224X	M.G.RESISTOR	220k	1/16W
R88	NRSA63J-224X	M.G.RESISTOR	220k	1/16W
R89	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R91	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R92	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R94	NRSA63J-105X	M.G.RESISTOR	1M	1/16W
R95	NRSA63J-105X	M.G.RESISTOR	1M	1/16W
R96	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R97	NRSA63J-105X	M.G.RESISTOR	1M	1/16W
R98	NRSA63J-105X	M.G.RESISTOR	1M	1/16W
R101	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R102	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R103	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R104	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R105	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R106	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R109	NRSA63J-113X	M.G.RESISTOR	11k	1/16W
R111	NRSA63J-682X	M.G.RESISTOR	6.8k	1/16W
R112	NRSA63J-272X	M.G.RESISTOR	2.7k	1/16W
R113	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R114	NRSA63J-222X	M.G.RESISTOR	2.2k	1/16W
R116	NRSA63J-682X	M.G.RESISTOR	6.8k	1/16W
R117	NRSA63J-272X	M.G.RESISTOR	2.7k	1/16W
R118	NRSA63J-222X	M.G.RESISTOR	2.2k	1/16W
R119	NRSA63J-113X	M.G.RESISTOR	11k	1/16W
R121	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R124	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R125	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R126	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R127	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R128	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R129	NRSA63J-392X	M.G.RESISTOR	3.9k	1/16W
R130	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R131	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R132	NRSA63J-392X	M.G.RESISTOR	3.9k	1/16W
R133	NRSA63J-562X	M.G.RESISTOR	5.6k	1/16W
R135	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R136	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R138	NRSA63J-562X	M.G.RESISTOR	5.6k	1/16W
R139	NRSA63J-105X	M.G.RESISTOR	1M	1/16W
R142	NRSA63J-224X	M.G.RESISTOR	220k	1/16W
R144	NRSA63J-224X	M.G.RESISTOR	220k	1/16W
R147	NRSA63J-105X	M.G.RESISTOR	1M	1/16W
R149	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R150	NRSA63J-683X	M.G.RESISTOR	68k	1/16W
R151	NRSA63J-242X	M.G.RESISTOR	2.4k	1/16W
R152	NRSA63J-681X	M.G.RESISTOR	680	1/16W
R153	NRSA63J-242X	M.G.RESISTOR	2.4k	1/16W
R154	NRSA63J-681X	M.G.RESISTOR	680	1/16W
R155	NRSA63J-683X	M.G.RESISTOR	68k	1/16W
R156	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R157	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R158	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R159	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R160	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R161	NRSA63J-152X	M.G.RESISTOR	1.5k	1/16W
R162	NRSA63J-911X	M.G.RESISTOR	910	1/16W
R163	NRSA63J-183X	M.G.RESISTOR	18k	1/16W
R164	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R165	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R166	NRSA63J-152X	M.G.RESISTOR	1.5k	1/16W
R167	NRSA63J-911X	M.G.RESISTOR	910	1/16W
R168	NRSA63J-183X	M.G.RESISTOR	18k	1/16W
R169	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R170	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R171	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R172	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R173	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R174	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R175	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R176	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R177	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R178	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R179	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R180	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R181	NRSA63J-681X	M.G.RESISTOR	680	1/16W
R184	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R185	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R186	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R187	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R188	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R189	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R195	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R196	NRSA63J-473X	M.G.RESISTOR	47k	1/16W

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Symbol No.	Part No.	Part Name	Description	
R319	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R320	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R321	NRSA63J-100X	M.G.RESISTOR	10	1/16W
R322	NRSA63J-100X	M.G.RESISTOR	10	1/16W
R323	NRSA63J-100X	M.G.RESISTOR	10	1/16W
R325	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R328	NRSA63J-333X	M.G.RESISTOR	33k	1/16W
R334	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R335	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R336	NRSA63J-100X	M.G.RESISTOR	10	1/16W
R337	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R338	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R339	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R350	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R362	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R363	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R364	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R370	NRSA63J-331X	M.G.RESISTOR	330	1/16W
R371	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R372	NRSA63J-271X	M.G.RESISTOR	270	1/16W
R373	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R374	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R375	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R380	NRSA63J-100X	M.G.RESISTOR	10	1/16W
R381	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R382	NRSA63J-331X	M.G.RESISTOR	330	1/16W
R383	NRSA63J-681X	M.G.RESISTOR	680	1/16W
R384	NRSA63J-681X	M.G.RESISTOR	680	1/16W
R385	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R386	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R387	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R390	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R501	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R502	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R503	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R504	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R505	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R506	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R507	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R508	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R509	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R510	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R511	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R512	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R513	NRSA63J-123X	M.G.RESISTOR	12k	1/16W
R514	NRSA63J-183X	M.G.RESISTOR	18k	1/16W
R515	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R517	NRSA63J-183X	M.G.RESISTOR	18k	1/16W
R519	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R520	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R521	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R522	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R523	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R524	NRSA63J-123X	M.G.RESISTOR	12k	1/16W
R525	NRSA63J-183X	M.G.RESISTOR	18k	1/16W
R526	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R527	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R529	NRSA63J-183X	M.G.RESISTOR	18k	1/16W
R530	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R531	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R532	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R535	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R536	NRSA63J-202X	M.G.RESISTOR	2k	1/16W
R537	NRSA63J-202X	M.G.RESISTOR	2k	1/16W
R538	NRSA63J-202X	M.G.RESISTOR	2k	1/16W
R539	NRSA63J-202X	M.G.RESISTOR	2k	1/16W
R540	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R541	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R542	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R543	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R544	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R545	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R546	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W

Symbol No.	Part No.	Part Name	Description	
R549	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R550	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R551	NRSA63J-153X	M.G.RESISTOR	15k	1/16W
R554	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R557	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R559	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R561	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R566	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R567	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R568	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R569	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R570	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R571	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R572	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R573	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R574	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R575	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R576	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R578	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R580	NRSA63J-220X	M.G.RESISTOR	22	1/16W
R581	NRSA63J-470X	M.G.RESISTOR	47	1/16W
R582	NRSA63J-823X	M.G.RESISTOR	82k	1/16W
R583	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R584	NRSA63J-330X	M.G.RESISTOR	33	1/16W
R585	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R586	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R587	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R588	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R589	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R596	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R597	NRSA63J-823X	M.G.RESISTOR	82k	1/16W
R598	NRSA63J-330X	M.G.RESISTOR	33	1/16W
R599	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R600	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R601	NRSA63J-470X	M.G.RESISTOR	47	1/16W
R602	NRSA63J-220X	M.G.RESISTOR	22	1/16W
R603	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R604	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R605	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R606	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R607	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R608	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R609	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R610	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R611	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R613	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R614	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R615	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R616	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R617	NRSA63J-822X	M.G.RESISTOR	8.2k	1/16W
R618	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R619	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R621	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R623	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R624	NRSA63J-822X	M.G.RESISTOR	8.2k	1/16W
R625	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R626	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R631	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R632	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R633	NRSA63J-152X	M.G.RESISTOR	1.5k	1/16W
R634	NRSA63J-152X	M.G.RESISTOR	1.5k	1/16W
R635	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R636	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R637	NRSA63J-154X	M.G.RESISTOR	150k	1/16W
R638	NRSA63J-154X	M.G.RESISTOR	150k	1/16W
R639	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R640	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R641	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R642	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R643	NRSA63J-105X	M.G.RESISTOR	1M	1/16W
R646	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R647	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R648	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W

Symbol No.	Part No.	Part Name	Description	
R650	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R651	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R652	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R653	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R654	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R655	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R656	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R657	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R658	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R661	NRSA63J-122X	M.G.RESISTOR	1.2k	1/16W
R662	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R663	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R664	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R665	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R701	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R702	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R703	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R704	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R705	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R706	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R707	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R708	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R709	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R710	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R711	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R712	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R713	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R714	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R715	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R716	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R717	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R718	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R719	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R720	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R721	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R722	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R723	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R724	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R725	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R726	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R727	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R728	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R729	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R730	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R731	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R732	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R733	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R734	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R735	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R736	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R737	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R738	NRSA63J-223X	M.G.RESISTOR	22k	1/16W
R739	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R740	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R741	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R742	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R743	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R744	NRSA63J-181X	M.G.RESISTOR	180	1/16W
VR1	QVQ0290-A14	VAL.RESISTOR	A10k,	REC VR(L)
VR2	QVQ0290-A14	VAL.RESISTOR	A10k,	REC VR(R)
VR501	NVP1415-104X	TRIM.RESISTOR	100k,	L EE LEVE
VR502	NVP1415-104X	TRIM.RESISTOR	100k,	L UNI LEV
VR503	NVP1415-104X	TRIM.RESISTOR	100k,	R EE LEVE
VR504	NVP1415-104X	TRIM.RESISTOR	100k,	R UNI LEV
VR505	QVQ0290-B14	VAL.RESISTOR	10k,	MONITOR
VR506	NVP1415-502X	TRIM.RESISTOR	5k,	LCH LEVEL
VR507	NVP1415-502X	TRIM.RESISTOR	5k,	RCH LEVEL
C1	NCB31HK-222X	CER.CAPACITOR	2200p	50V
C2	NFV72CK-474X	FILM CAPACITOR	0.47	160V
C3	NFV72CK-474X	FILM CAPACITOR	0.47	160V

Symbol No.	Part No.	Part Name	Description	
C6	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C7	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C8	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C11	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C12	NEH91CM-106X	E.CAPACITOR	10	16V
C13	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C14	NEH91CM-106X	E.CAPACITOR	10	16V
C15	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C16	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C17	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C18	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C19	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C20	NEH91CM-106X	E.CAPACITOR	10	16V
C21	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C22	NEH91CM-106X	E.CAPACITOR	10	16V
C23	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C24	NFV72CK-474X	FILM CAPACITOR	0.47	160V
C25	NCB31HK-222X	CER.CAPACITOR	2200p	50V
C26	NFV72CK-474X	FILM CAPACITOR	0.47	160V
C29	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C30	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C31	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C34	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C35	NEH91CM-106X	E.CAPACITOR	10	16V
C36	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C37	NEH91CM-106X	E.CAPACITOR	10	16V
C38	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C45	NCB41CM-106X	CER.CAPACITOR	10	16V
C46	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C47	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C48	NCB30JK-105X	CER.CAPACITOR	1	6.3V
C49	NCB31AK-224X	CER.CAPACITOR	0.22	10V
C50	NEH91CM-476X	E.CAPACITOR	47	16V
C51	NCB30JK-105X	CER.CAPACITOR	1	6.3V
C52	NCB31AK-224X	CER.CAPACITOR	0.22	10V
C53	NEH91CM-476X	E.CAPACITOR	47	16V
C54	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C55	NCB41CM-106X	CER.CAPACITOR	10	16V
C56	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C57	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C58	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C59	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C60	NCB41CM-106X	CER.CAPACITOR	10	16V
C61	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C62	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C63	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C64	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C65	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C66	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C67	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C68	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C73	NCB41CM-106X	CER.CAPACITOR	10	16V
C74	NCB41CM-106X	CER.CAPACITOR	10	16V
C76	NCB41CM-106X	CER.CAPACITOR	10	16V
C77	NEH91CM-106X	E.CAPACITOR	10	16V
C78	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C79	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C80	NEH91CM-106X	E.CAPACITOR	10	16V
C81	NCB41CM-106X	CER.CAPACITOR	10	16V
C82	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C83	NEH91CM-106X	E.CAPACITOR	10	16V
C84	NEH91CM-106X	E.CAPACITOR	10	16V
C85	NEH91CM-106X	E.CAPACITOR	10	16V
C86	NEH91CM-106X	E.CAPACITOR	10	16V
C87	NEH91CM-106X	E.CAPACITOR	10	16V
C88	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C89	NEH91CM-106X	E.CAPACITOR	10	16V
C90	NCB41CM-106X	CER.CAPACITOR	10	16V
C91	NEH91CM-106X	E.CAPACITOR	10	16V
C101	NCB41CM-106X	CER.CAPACITOR	10	16V
C102	NEH91CM-106X	E.CAPACITOR	10	16V
C104	NCB41CM-106X	CER.CAPACITOR	10	16V
C105	NCB41CM-106X	CER.CAPACITOR	10	16V

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Symbol No.	Part No.	Part Name	Description	
C106	NCB41CM-106X	CER.CAPACITOR	10	16V
C107	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C108	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C109	NDC31HJ-100X	CER.CAPACITOR	10p	50V
C110	NCB41CM-106X	CER.CAPACITOR	10	16V
C112	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C113	NEH91CM-106X	E.CAPACITOR	10	16V
C114	NCB41CM-106X	CER.CAPACITOR	10	16V
C115	NDC31HJ-100X	CER.CAPACITOR	10p	50V
C116	NEH91CM-106X	E.CAPACITOR	10	16V
C117	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C118	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C119	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C120	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C121	NCB31EK-223X	CER.CAPACITOR	0.022	25V
C122	NCB31HK-222X	CER.CAPACITOR	2200p	50V
C123	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C124	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C125	NCB41CM-106X	CER.CAPACITOR	10	16V
C126	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C127	NCB41CM-106X	CER.CAPACITOR	10	16V
C128	NCB31EK-223X	CER.CAPACITOR	0.022	25V
C129	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C130	NCB31HK-222X	CER.CAPACITOR	2200p	50V
C132	NCB31EK-223X	CER.CAPACITOR	0.022	25V
C133	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C134	NRSA63J-562X	M.G.RESISTOR	5.6k	1/16W
C135	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C136	NEH91CM-106X	E.CAPACITOR	10	16V
C137	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C138	NEH91CM-106X	E.CAPACITOR	10	16V
C139	NCB41CM-106X	CER.CAPACITOR	10	16V
C140	NEH91HM-105X	E.CAPACITOR	1	50V
C141	NEH91HM-105X	E.CAPACITOR	1	50V
C147	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C315	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C316	NBE41AM-226X	TAN.CAPACITOR	22	10V
C318	NCB11AK-106X	CER.CAPACITOR	10	10V
C326	NBE41AM-226X	TAN.CAPACITOR	22	10V
C327	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C328	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C329	NEH91CM-106X	E.CAPACITOR	10	16V
C330	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C331	NCB11CK-105X	CER.CAPACITOR	1	16V
C333	NBE41CM-106X	TAN.CAPACITOR	10	16V
C334	NCB11CK-105X	CER.CAPACITOR	1	16V
C335	NCB11CK-105X	CER.CAPACITOR	1	16V
C336	NCB11CK-105X	CER.CAPACITOR	1	16V
C337	NCB11CK-105X	CER.CAPACITOR	1	16V
C338	NCB11CK-105X	CER.CAPACITOR	1	16V
C339	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C340	NCB31HK-682X	CER.CAPACITOR	6800p	50V
C341	NCB11AK-225X	CER.CAPACITOR	2.2	10V
C345	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C346	NBE41AM-226X	TAN.CAPACITOR	22	10V
C348	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C349	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C350	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C351	NCB11CK-105X	CER.CAPACITOR	1	16V
C352	NCB11AK-106X	CER.CAPACITOR	10	10V
C353	NCB11CK-105X	CER.CAPACITOR	1	16V
C354	NCB11CK-105X	CER.CAPACITOR	1	16V
C355	NCB11CK-105X	CER.CAPACITOR	1	16V
C360	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C361	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C502	NCB41EM-475X	CER.CAPACITOR	4.7	25V
C503	NCB41EM-475X	CER.CAPACITOR	4.7	25V
C504	NCB41EM-475X	CER.CAPACITOR	4.7	25V
C505	NCB41EM-475X	CER.CAPACITOR	4.7	25V
C506	NCB41CM-106X	CER.CAPACITOR	10	16V
C507	NCB41CM-106X	CER.CAPACITOR	10	16V
C508	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C510	NCB41EM-475X	CER.CAPACITOR	4.7	25V
C511	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C512	NCB41EM-475X	CER.CAPACITOR	4.7	25V
C513	NCB41EM-475X	CER.CAPACITOR	4.7	25V
C514	NCB41EM-475X	CER.CAPACITOR	4.7	25V
C515	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C516	NCB41CM-106X	CER.CAPACITOR	10	16V
C517	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C518	NCB41CM-106X	CER.CAPACITOR	10	16V
C520	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C521	NCB41CM-106X	CER.CAPACITOR	10	16V
C522	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C523	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C524	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C525	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C526	NEH91CM-226X	E.CAPACITOR	22	16V
C527	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C528	NEH91CM-226X	E.CAPACITOR	22	16V
C529	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C530	NEH91CM-226X	E.CAPACITOR	22	16V
C531	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C532	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C533	NEH91CM-226X	E.CAPACITOR	22	16V
C534	NCB41CM-106X	CER.CAPACITOR	10	16V
C535	NDC31HJ-100X	CER.CAPACITOR	10p	50V
C536	NDC31HJ-100X	CER.CAPACITOR	10p	50V
C537	NCB41CM-106X	CER.CAPACITOR	10	16V
C538	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C539	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C540	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C541	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C544	NCB41CM-106X	CER.CAPACITOR	10	16V
C545	NDC31HJ-100X	CER.CAPACITOR	10p	50V
C546	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C547	NEH91CM-226X	E.CAPACITOR	22	16V
C548	NEH91CM-226X	E.CAPACITOR	22	16V
C549	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C550	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C553	NCB41CM-106X	CER.CAPACITOR	10	16V
C554	NDC31HJ-100X	CER.CAPACITOR	10p	50V
C555	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C556	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C557	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C558	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C559	NRSA63J-103X	M.G.RESISTOR	0.01	
C560	NRSA63J-103X	M.G.RESISTOR	0.01	
C561	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C562	NEH91CM-106X	E.CAPACITOR	10	16V
C563	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C564	NEH91CM-106X	E.CAPACITOR	10	16V
C565	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C566	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C567	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C568	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C569	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C570	NEH91CM-106X	E.CAPACITOR	10	16V
C571	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C572	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C573	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C574	NEH91CM-106X	E.CAPACITOR	10	16V
C575	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C576	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C577	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C578	NEH91CM-106X	E.CAPACITOR	10	16V
C579	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C580	NEH91CM-106X	E.CAPACITOR	10	16V
C581	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C582	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C583	NEH91CM-106X	E.CAPACITOR	10	16V
C584	NEH91CM-106X	E.CAPACITOR	10	16V
C585	NCB41CM-106X	CER.CAPACITOR	10	16V
C586	NRS144J-0R0X	M.G.RESISTOR	0	1/16W
C587	NRS144J-0R0X	M.G.RESISTOR	0	1/16W

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Symbol No.	Part No.	Part Name	Description
C588	NCB41CM-106X	CER.CAPACITOR	10 16V
C589	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C590	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C591	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C592	NCB41CM-106X	CER.CAPACITOR	10 16V
C593	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C594	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C595	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C596	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C597	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C598	NCB41CM-106X	CER.CAPACITOR	10 16V
C599	NCB41CM-106X	CER.CAPACITOR	10 16V
C600	NCB41CM-106X	CER.CAPACITOR	10 16V
C601	NDC31HJ-101X	CER.CAPACITOR	100p 50V
C602	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C603	NCB41CM-106X	CER.CAPACITOR	10 16V
C604	NCB41CM-106X	CER.CAPACITOR	10 16V
C605	NCB41CM-106X	CER.CAPACITOR	10 16V
C606	NDC31HJ-101X	CER.CAPACITOR	100p 50V
C607	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C608	NCB41CM-106X	CER.CAPACITOR	10 16V
C609	NEH91EM-226X	E.CAPACITOR	22 25V
C610	NCB41CM-106X	CER.CAPACITOR	10 16V
C611	NCB41CM-106X	CER.CAPACITOR	10 16V
C614	NCB41CM-106X	CER.CAPACITOR	10 16V
C615	NDC31HJ-100X	CER.CAPACITOR	10p 50V
C616	NDC31HJ-101X	CER.CAPACITOR	100p 50V
C617	NEH91CM-106X	E.CAPACITOR	10 16V
C618	NEH91CM-106X	E.CAPACITOR	10 16V
C619	NEH91CM-106X	E.CAPACITOR	10 16V
C620	NDC31HJ-101X	CER.CAPACITOR	100p 50V
C621	NCB41CM-106X	CER.CAPACITOR	10 16V
C622	NDC31HJ-100X	CER.CAPACITOR	10p 50V
C623	NEH91CM-106X	E.CAPACITOR	10 16V
C624	NCB41CM-106X	CER.CAPACITOR	10 16V
C625	NCB41CM-106X	CER.CAPACITOR	10 16V
C626	NCB41CM-106X	CER.CAPACITOR	10 16V
C627	NCB41EM-475X	CER.CAPACITOR	4.7 25V
C628	NCB41EM-475X	CER.CAPACITOR	4.7 25V
C629	NEH91CM-106X	E.CAPACITOR	10 16V
C630	NEH91CM-106X	E.CAPACITOR	10 16V
C631	NCB31EK-473X	CER.CAPACITOR	0.047 25V
C632	NCB31EK-473X	CER.CAPACITOR	0.047 25V
C633	NEH91EM-226X	E.CAPACITOR	22 25V
C634	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C635	NCB41CM-106X	CER.CAPACITOR	10 16V
C701	NCB31HK-103X	CER.CAPACITOR	0.01 50V
C702	NCB31HK-103X	CER.CAPACITOR	0.01 50V
C703	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C704	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C705	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C706	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C707	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C708	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C709	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C710	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C711	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C712	NCB31CK-104X	CER.CAPACITOR	0.1 16V
L302	NQL044K-101X	COIL	100uH
L303	NQL044K-101X	COIL	100uH
L501	NQL024J-100X	COIL	10uH
L502	NQL024J-100X	COIL	10uH
L503	NQL024J-100X	COIL	10uH
L504	NQL024J-100X	COIL	10uH
L506	NQL024J-100X	COIL	10uH
L507	NQL024J-100X	COIL	10uH
S1	NSW0070-002X	SLIDE SWITCH	AUDIO INPUT(F)
S2	NSW0070-002X	SLIDE SWITCH	AUDIO INPUT(R)
S3	NSW0070-001X	SLIDE SWITCH	AUD SELECT(CH1)
S4	NSW0070-001X	SLIDE SWITCH	AUD SELECT(CH2)
S501	NSW0070-002X	SLIDE SWITCH	MONITOR SELECT

Symbol No.	Part No.	Part Name	Description
S701	NSW0010-001X	SWITCH	EDIT SEARCH(R)
S702	NSW0010-001X	SWITCH	EDIT SEARCH(F)
S703	NSW0010-001X	SWITCH	LCD BRIGHT+
S704	NSW0010-001X	SWITCH	LCD BRIGHT-
S705	NSW0070-002X	SLIDE SWITCH	TC GENE.
S706	NSW0070-002X	SLIDE SWITCH	AUTO IRIS
S707	NSW0010-001X	SWITCH	STATUS
S708	NSW0070-001X	SLIDE SWITCH	COUNTER
S709	NSW0070-001X	SLIDE SWITCH	AUDIO SELECT(L)
S710	NSW0070-001X	SLIDE SWITCH	AUDIO SELECT(R)
S711	NSW0010-001X	SWITCH	LOLUX
S712	NSW0070-002X	SLIDE SWITCH	BLACK
S713	NSW0010-001X	SWITCH	FULL AUTO
S714	QSW0603-001	ROTARY SWITCH	SHUTTER
S715	NSW0010-001X	SWITCH	DISPLAY
CN26	QGF0508F1-20X	CONNECTOR	20PIN
CN27	QGF0508F1-33X	CONNECTOR	33PIN
CN28	QGF1012F1-08X	CONNECTOR	8PIN
CN29	QGA1201F2-10X	CONNECTOR	10PIN
CN30	QGA1201F2-04X	CONNECTOR	4PIN
CN31	QGA1201F2-03X	CONNECTOR	3PIN
CN32	QGA1201F2-02X	CONNECTOR	2PIN
CN38	QGA1201F2-05X	CONNECTOR	5PIN
CN41	QGA1201F2-03X	CONNECTOR	3PIN
CN303	QGF0508C1-30W	CONNECTOR	30PIN
TP5	NNZ0009-001X	TEST POINT	, x29
K501	PGZ00627Z	FERRATE BEADS	
K502	PGZ00627Z	FERRATE BEADS	
K503	PGZ00627Z	FERRATE BEADS	
K504	PGZ00627Z	FERRATE BEADS	
TB501	PGZ02228	EARTH LUG	
TB502	PGZ02228	EARTH LUG	
TB503	PGZ02228	EARTH LUG	

6.7 M.RELAY BOARD ASSEMBLY PARTS LIST 07

CK270000B2 07☐☐☐☐☐

Symbol No.	Part No.	Part Name	Description
S911	NSW0095-001X	DETECT SWITCH	LCD ON
CN303	QGF0508F1-30X	CONNECTOR	30PIN
CN911	QGF0305F1-33X	CONNECTOR	33PIN

6.8 M.BL BOARD ASSEMBLY PARTS LIST 08

CK270000B31 08☐☐☐☐☐☐

Symbol No.	Part No.	Part Name	Description
Q907	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q908	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q909	2SC4626/BC/-X	TRANSISTOR	MATSUSHITA
Q910	DTA144EUA-X	TRANSISTOR	ROHM
Q911	2SD874/QR/-X	TRANSISTOR	MATSUSHITA
Q912	2SD874/QR/-X	TRANSISTOR	MATSUSHITA
R901	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R941	NRSA63J-563X	M.G.RESISTOR	56k 1/16W
R942	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R943	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R944	NRSA63J-473X	M.G.RESISTOR	47k 1/16W
R945	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R946	NRSA63J-473X	M.G.RESISTOR	47k 1/16W
R947	NRSA63J-563X	M.G.RESISTOR	56k 1/16W
R948	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R949	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R950	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
C958	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C959	NCB11CK-105X	CER.CAPACITOR	1 16V
C960	NDC31HJ-151X	CER.CAPACITOR	150p 50V
C961	NBE41CM-226X	TAN.CAPACITOR	22 16V
C962	NCB31HK-103X	CER.CAPACITOR	0.01 50V
C963	NCB31HK-103X	CER.CAPACITOR	0.01 50V
C964	NCB31HK-562X	CER.CAPACITOR	5600p 50V
C965	NFV41HJ-273X	FILM CAPACITOR	0.027 50V
C966	NCZ1016-220X	CER.CAPACITOR	22p
C967	NCZ1016-220X	CER.CAPACITOR	22p
C968	NCZ1016-220X	CER.CAPACITOR	22p
L907	NQLZ010-220X	COIL	22uH
L908	NQLZ010-220X	COIL	22uH
CN902	QGF0517F1-24X	CONNECTOR	24PIN
CN912	QGF0506F2-32X	CONNECTOR	32PIN
T901	NQS0037-001X	SW TRANSF	

6.9 DV/CPU BOARD ASSEMBLY PARTS LIST 11

LK2125-B0B 11☐☐☐☐☐☐

Symbol No.	Part No.	Part Name	Description
IC1	JCY0132	I.C.(M)	JVC
IC2	TC7SH00FU-X	I.C.(M)	TOSHIBA
IC3	TC7SH00FU-X	I.C.(M)	TOSHIBA
IC101	TLC2940IPW-X	I.C.(M)	TEXAS
IC102	JCY0136-X	I.C.(M)	JVC
IC103	JCY0152	I.C.(M)	JVC
IC104	SN74AHC574PW-X	I.C.(M)	TEXAS
IC105	SN74AHC574PW-X	I.C.(M)	TEXAS
IC106	SN74AHC245DGV-X	I.C.(M)	TEXAS
IC107	TC7W53FU-X	I.C.(M)	TOSHIBA
IC301	M95320-WMN6-X	I.C.(M)	MITSUBISHI
IC302	PLSL1143-	MSD CPU	MN103SF33NY4
IC402	MM1571JN-X	I.C.(M)	MITSUMI
IC404	TC7W14FU-X	I.C.(M)	TOSHIBA
IC405	M62366GP-X	I.C.(M)	MITSUBISHI
Q102	DTC143EUA-X	TRANSISTOR	ROHM
Q402	DTA114EUA-X	TRANSISTOR	ROHM
Q403	DTA114EUA-X	TRANSISTOR	ROHM
Q404	DTA114EUA-X	TRANSISTOR	ROHM
Q405	DTA114EUA-X	TRANSISTOR	ROHM
Q406	UMC3N-W	TRANSISTOR	ROHM
Q407	UMC3N-W	TRANSISTOR	ROHM
Q408	UMC3N-W	TRANSISTOR	ROHM
Q409	UMC3N-W	TRANSISTOR	ROHM
Q410	DTA114EUA-X	TRANSISTOR	ROHM
Q411	2SA1577/PQ/-X	TRANSISTOR	ROHM
Q412	2SA1577/PQ/-X	TRANSISTOR	ROHM
D101	EC2C01C-X	DIODE ARRAY	SANYO
D102	EC2C01C-X	DIODE ARRAY	SANYO
D103	EC2C01C-X	DIODE ARRAY	SANYO
D401	DAN202U-X	DIODE	ROHM
D402	DAN202U-X	DIODE	ROHM
D403	DAN202U-X	DIODE	ROHM
R3	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R4	NRSA63J-104X	M.G.RESISTOR	100k 1/16W
R5	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R6	NRSA63J-241X	M.G.RESISTOR	240 1/16W
R7	NRSA63J-241X	M.G.RESISTOR	240 1/16W
R8	NRSA63J-241X	M.G.RESISTOR	240 1/16W
R9	NRSA63J-241X	M.G.RESISTOR	240 1/16W
R10	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R11	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R12	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R13	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R14	NRSA63D-560X	M.G.RESISTOR	56 1/16W
R101	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R104	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R105	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R106	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R107	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R108	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R109	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R111	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R112	NRSA63J-151X	M.G.RESISTOR	150 1/16W
R113	NRSA63J-302X	M.G.RESISTOR	3k 1/16W
R114	NRSA63J-151X	M.G.RESISTOR	150 1/16W
R115	NRSA63J-302X	M.G.RESISTOR	3k 1/16W
R116	NRSA63J-220X	M.G.RESISTOR	22 1/16W
R117	NRSA63J-220X	M.G.RESISTOR	22 1/16W
R118	NRSA63J-105X	M.G.RESISTOR	1M 1/16W
R119	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R120	NRSA63J-562X	M.G.RESISTOR	5.6k 1/16W
R121	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R122	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R123	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R124	NRSA63J-224X	M.G.RESISTOR	220k 1/16W
R126	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R127	NRSA63J-242X	M.G.RESISTOR	2.4k 1/16W
R128	NRSA63J-392X	M.G.RESISTOR	3.9k 1/16W

Symbol No.	Part No.	Part Name	Description	
R129	NRSA63J-392X	M.G.RESISTOR	3.9k	1/16W
R130	NRSA63D-560X	M.G.RESISTOR	56	1/16W
R131	NRSA63D-560X	M.G.RESISTOR	56	1/16W
R132	NRSA63D-560X	M.G.RESISTOR	56	1/16W
R133	NRSA63D-560X	M.G.RESISTOR	56	1/16W
R134	NRSA63D-512X	M.G.RESISTOR	5.1k	1/16W
R139	NRSA63J-330X	M.G.RESISTOR	33	1/16W
R141	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R142	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R147	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R148	NRSA63J-681X	M.G.RESISTOR	680	1/16W
R149	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R150	NRSA63J-222X	M.G.RESISTOR	2.2k	1/16W
R151	NRSA63J-224X	M.G.RESISTOR	220k	1/16W
R152	NRSA63J-224X	M.G.RESISTOR	220k	1/16W
R153	NRSA63J-105X	M.G.RESISTOR	1M	1/16W
R154	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R155	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R156	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R157	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R158	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R159	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R160	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R164	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R165	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R166	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R167	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R168	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R169	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R170	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R171	NRSA63J-330X	M.G.RESISTOR	33	1/16W
R172	NRSA63J-330X	M.G.RESISTOR	33	1/16W
R173	NRSA63J-330X	M.G.RESISTOR	33	1/16W
R174	NRSA63J-330X	M.G.RESISTOR	33	1/16W
R176	NRSA63J-105X	M.G.RESISTOR	1M	1/16W
R178	NRSA63J-182X	M.G.RESISTOR	1.8k	1/16W
R179	NRSA63J-561X	M.G.RESISTOR	560	1/16W
R181	NRSA63J-330X	M.G.RESISTOR	33	1/16W
R183	NRSA63J-330X	M.G.RESISTOR	33	1/16W
R301	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R302	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R303	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R304	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R305	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R306	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R307	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R308	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R309	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R310	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R311	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R312	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R313	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R314	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R315	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R316	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R317	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R318	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R319	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R320	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R321	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R322	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R323	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R324	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R325	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R326	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R327	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R328	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R329	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R330	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R331	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R332	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R333	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R334	NRSA63J-103X	M.G.RESISTOR	10k	1/16W

Symbol No.	Part No.	Part Name	Description	
R335	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R336	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R337	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R338	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R339	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R340	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R341	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R342	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R343	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R344	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R345	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R346	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R347	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R348	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R349	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R350	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R351	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R352	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R357	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R358	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R401	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R402	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R405	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R406	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R407	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R408	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R409	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R410	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R411	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R412	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R413	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R415	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R416	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R417	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R418	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R419	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R420	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R421	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R422	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R423	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R424	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R425	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R426	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R427	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R428	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R429	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R430	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R431	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R432	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R433	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R434	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R435	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R436	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R437	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R438	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R439	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R440	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R441	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R442	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R443	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R444	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R445	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R446	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R447	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R448	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R449	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R450	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R451	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R452	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R453	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R455	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R456	NRSA63J-103X	M.G.RESISTOR	10k	1/16W

1 1 [DV/CPU]

Symbol No.	Part No.	Part Name	Description	
R457	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R458	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R459	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R460	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R461	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R462	NRSA63J-125X	M.G.RESISTOR	1.2M	1/16W
R463	NRSA63J-824X	M.G.RESISTOR	820k	1/16W
R464	NRSA63J-275X	M.G.RESISTOR	2.7M	1/16W
R465	NRSA63J-824X	M.G.RESISTOR	820k	1/16W
R466	NRSA63J-275X	M.G.RESISTOR	2.7M	1/16W
R467	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R468	NRSA63J-125X	M.G.RESISTOR	1.2M	1/16W
R469	NRSA63J-102X	M.G.RESISTOR	1k	1/16W
R470	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R471	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R472	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R473	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R474	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R475	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R476	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R477	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R478	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R479	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R480	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R481	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R482	NRSA63J-473X	M.G.RESISTOR	47k	1/16W
R483	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R484	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R485	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R486	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R487	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R488	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R489	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R490	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R491	NRSA63J-330X	M.G.RESISTOR	33	1/16W
R492	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R493	NRSA63J-103X	M.G.RESISTOR	10k	1/16W
R494	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R495	NRSA63D-273X	M.G.RESISTOR	27k	1/16W
R501	NRSA63J-333X	M.G.RESISTOR	33k	1/16W
RA101	NRZ0015-102X	RESISTOR ARRAY	1k	
RA102	NRZ0015-103X	M.G.RESISTOR	10k	
RA103	NRZ0015-103X	M.G.RESISTOR	10k	
RA104	NRZ0015-330X	R.NETWORK	33	
RA105	NRZ0015-330X	R.NETWORK	33	
RA106	NRZ0015-330X	R.NETWORK	33	
RA107	NRZ0015-330X	R.NETWORK	33	
RA401	NRZ0015-101X	RESISTOR ARRAY	100	
RA402	NRZ0015-101X	RESISTOR ARRAY	100	
RA403	NRZ0015-101X	RESISTOR ARRAY	100	
C1	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C2	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C3	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C4	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C5	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C6	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C7	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C8	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C9	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C10	NBE21AM-106X	TAN.CAPACITOR	10	10V
C11	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C12	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C13	NBE21AM-106X	TAN.CAPACITOR	10	10V
C14	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C15	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C16	NBE41CM-106X	TAN.CAPACITOR	10	16V
C17	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C18	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C19	NBE41CM-106X	TAN.CAPACITOR	10	16V
C20	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C21	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C22	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C23	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C24	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C25	NDC31HJ-221X	CER.CAPACITOR	220p	50V
C26	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C27	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C28	NDC31HJ-102X	CER.CAPACITOR	1000p	50V
C29	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C30	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C31	NCB11CK-475X	CER.CAPACITOR	4.7	16V
C32	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C33	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C34	NCB11CK-475X	CER.CAPACITOR	4.7	16V
C35	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C101	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C102	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C103	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C104	NDC31HJ-151X	CER.CAPACITOR	150p	50V
C106	NCB30JK-105X	CER.CAPACITOR	1	6.3V
C108	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C109	NBE21AM-106X	TAN.CAPACITOR	10	10V
C110	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C111	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C112	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C113	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C114	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C115	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C116	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C117	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C118	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C119	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C120	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C121	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C122	NDC31HJ-120X	CER.CAPACITOR	12p	50V
C123	NDC31HJ-120X	CER.CAPACITOR	12p	50V
C124	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C125	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C126	NDC31HJ-390X	CER.CAPACITOR	39p	50V
C127	NDC31HJ-102X	CER.CAPACITOR	1000p	50V
C128	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C129	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C130	NCB11CK-105X	CER.CAPACITOR	1	16V
C131	NCB11CK-475X	CER.CAPACITOR	4.7	16V
C133	NDC31HJ-271X	CER.CAPACITOR	270p	50V
C135	NCB31CK-473X	CER.CAPACITOR	0.047	16V
C136	NCB31HK-222X	CER.CAPACITOR	2200p	50V
C137	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C138	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C139	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C140	NDC31HJ-390X	CER.CAPACITOR	39p	50V
C141	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C142	NDC31HJ-330X	CER.CAPACITOR	33p	50V
C143	NDC31HJ-6R0X	CER.CAPACITOR	6p	50V
C144	NDC31HJ-6R0X	CER.CAPACITOR	6p	50V
C145	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C146	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C147	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C148	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C149	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C150	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C151	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C152	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C154	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C155	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C156	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C301	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C302	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C303	NCF31AZ-105X	CER.CAPACITOR	1	10V
C304	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C305	NCF31AZ-105X	CER.CAPACITOR	1	10V
C306	NDC31HJ-150X	CER.CAPACITOR	15p	50V
C307	NDC31HJ-150X	CER.CAPACITOR	15p	50V

Symbol No.	Part No.	Part Name	Description	
C308	NCF31AZ-105X	CER.CAPACITOR	1	10V
C309	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C310	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C311	NCF31AZ-105X	CER.CAPACITOR	1	10V
C312	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C313	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C401	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C402	NBE41CM-106X	TAN.CAPACITOR	10	16V
C403	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C406	NBE21AM-106X	TAN.CAPACITOR	10	10V
C407	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C408	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C409	NBE21AM-106X	TAN.CAPACITOR	10	10V
C410	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C411	NCB11CK-105X	CER.CAPACITOR	1	16V
C412	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C413	NBE21AM-106X	TAN.CAPACITOR	10	10V
C414	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C415	NBE21AM-106X	TAN.CAPACITOR	10	10V
C416	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C419	NBE21AM-106X	TAN.CAPACITOR	10	10V
C420	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C421	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C422	NBE21AM-106X	TAN.CAPACITOR	10	10V
C423	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C424	NBE21AM-106X	TAN.CAPACITOR	10	10V
C425	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C426	NBE21AM-106X	TAN.CAPACITOR	10	10V
C427	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C428	NBE21AM-106X	TAN.CAPACITOR	10	10V
C429	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C430	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C432	NCB11CK-105X	CER.CAPACITOR	1	16V
C433	NCB11CK-105X	CER.CAPACITOR	1	16V
C434	NBE21AM-106X	TAN.CAPACITOR	10	10V
C435	NBE21AM-106X	TAN.CAPACITOR	10	10V
C436	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C437	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C438	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C439	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C442	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C443	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C444	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C445	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C446	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C447	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C448	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C449	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C450	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C451	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C452	NBE21AM-106X	TAN.CAPACITOR	10	10V
C453	NCB31CK-104X	CER.CAPACITOR	0.1	16V
L1	NQL044K-100X	COIL	10uH	
L2	NQL044K-100X	COIL	10uH	
L3	NQL044K-100X	COIL	10uH	
L4	NQL044K-100X	COIL	10uH	
L101	NQL024J-2R2X	COIL	2.2uH	
L102	NQR0276-001X	COIL	000uH	
L103	NQL024J-120X	COIL	12uH	
L104	NQL024J-100X	COIL	10uH	
L105	NQL044K-100X	COIL	10uH	
L402	NQL044K-100X	COIL	10uH	
L403	NQL044K-100X	COIL	10uH	
L404	NQL044K-100X	COIL	10uH	
L405	NQL044K-100X	COIL	10uH	
L406	NQL044K-100X	COIL	10uH	
L408	NQL044K-100X	COIL	10uH	
LC401	NQR0436-001X	LC FILTER		
LC402	NQR0436-001X	LC FILTER		

Symbol No.	Part No.	Part Name	Description
LC403	NQR0436-001X	LC FILTER	
LC404	NQR0436-001X	LC FILTER	
LC405	NQR0436-001X	LC FILTER	
X101	NAX0141-001X	CRYSTAL	41.850MHz
X102	NAX0206-001X	CRYSTAL	24.576MHz
X301	NAX0348-001X	CRYSTAL	27.000MHz
CN101	QGA1201F2-06X	CONNECTOR	6PIN
CN102	QGF0508C1-30W	CONNECTOR	30PIN
CN103	QGF0508C1-45W	CONNECTOR	45PIN
CN104	QGF0508C1-13W	CONNECTOR	13PIN
CN105	QGF0508C1-26W	CONNECTOR	26PIN
CN106	QGF0508C1-20W	CONNECTOR	20PIN
CN107	QGF0503F4-08X	CONNECTOR	8PIN
CN108	QGA1501F2-08W	CONNECTOR	8PIN
TP1	NNZ0071-001X	TEST POINT	TP1-TP3
K1	NQR0265-001X	FERAITE BEADS	
K101	NQR0265-001X	FERAITE BEADS	
K103	NQR0265-001X	FERAITE BEADS	
K401	NQR0265-001X	FERAITE BEADS	
K402	NQR0265-001X	FERAITE BEADS	

6.10 MDA/DC BOARD ASSEMBLY PARTS LIST 1 2

LK2124A0B

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Symbol No.	Part No.	Part Name	Description
IC11	BA6865KV	I.C.(M)	ROHM
IC12	BA6417F-X	I.C.(M)	ROHM
IC21	BA6862FS-X	I.C.(M)	ROHM
IC22	BA10358F-XE	I.C.(M)	ROHM
IC23	BA10393F-XE	I.C.(M)	ROHM
IC31	BA9743AFV-X	I.C.(M)	ROHM
IC32	BA9743AFV-X	I.C.(M)	ROHM
IC41	BA9743AFV-X	I.C.(M)	ROHM
IC42	MM1572KN-X	I.C.(M)	MITSUMI
IC43	MM1572FN-X	I.C.(M)	MITSUMI
Q11	2SB1302/ST/-X	TRANSISTOR	SANYO
Q12	2SB1302/ST/-X	TRANSISTOR	SANYO
Q13	2SB1302/ST/-X	TRANSISTOR	SANYO
Q14	2SC4081/QRS/-X	TRANSISTOR	ROHM
Q15	2SC4081/QRS/-X	TRANSISTOR	ROHM
Q21	2SB1302/ST/-X	TRANSISTOR	SANYO
Q22	2SB1302/ST/-X	TRANSISTOR	SANYO
Q23	2SB1302/ST/-X	TRANSISTOR	SANYO
Q31	2SJ484WY-X	FET	HITACHI
Q32	2SJ484WY-X	FET	HITACHI
Q33	2SJ484WY-X	FET	HITACHI
Q34	DTC124EUA-X	TRANSISTOR	ROHM
Q35	2SB1302/ST/-X	TRANSISTOR	SANYO
Q36	2SJ484WY-X	FET	HITACHI
Q37	DTA114EUA-X	TRANSISTOR	ROHM
Q41	2SJ484WY-X	FET	HITACHI
Q42	2SJ484WY-X	FET	HITACHI
Q43	2SC4097/QR/-X	TRANSISTOR	ROHM
Q44	2SA1577/QR/-X	TRANSISTOR	ROHM
Q45	2SC4097/QR/-X	TRANSISTOR	ROHM
Q46	2SA1577/QR/-X	TRANSISTOR	ROHM
Q51	2SC4097/QR/-X	TRANSISTOR	ROHM
Q52	2SA1577/QR/-X	TRANSISTOR	ROHM
Q53	2SC4097/QR/-X	TRANSISTOR	ROHM
Q54	2SA1577/QR/-X	TRANSISTOR	ROHM
Q55	2SC4097/QR/-X	TRANSISTOR	ROHM
Q56	2SA1577/QR/-X	TRANSISTOR	ROHM
Q57	2SC4097/QR/-X	TRANSISTOR	ROHM
Q58	2SA1577/QR/-X	TRANSISTOR	ROHM

1 2 [MD/DC]

Symbol No.	Part No.	Part Name	Description
D11	DAP222-X	DIODE	ROHM
D12	MA3110/L/-X	ZENER DIODE	MATSUSHITA
D13	DAP222-X	DIODE	ROHM
D22	MA3020-X	ZENER DIODE	MATSUSHITA
D31	SFPB-72-W	SB DIODE	SANKEN
D32	SFPB-72-W	SB DIODE	SANKEN
D33	DAP202U-X	DIODE	ROHM
D34	SFPB-72-W	SB DIODE	SANKEN
D35	DA204U-X	DIODE	ROHM
D36	SFPB-72-W	SB DIODE	SANKEN
D37	DAP202U-X	DIODE	ROHM
D41	SFPB-72-W	SB DIODE	SANKEN
D42	SFPB-72-W	SB DIODE	SANKEN
R101	NRSA63J-155X	M.G.RESISTOR	1.5M 1/16W
R102	NRSA63J-274X	M.G.RESISTOR	270k 1/16W
R103	NRSA63J-681X	M.G.RESISTOR	680 1/16W
R104	NRSA63J-272X	M.G.RESISTOR	2.7k 1/16W
R105	NRSA63J-104X	M.G.RESISTOR	100k 1/16W
R106	NRSA63J-511X	M.G.RESISTOR	510 1/16W
R107	NRSA63J-511X	M.G.RESISTOR	510 1/16W
R108	NRSA63J-511X	M.G.RESISTOR	510 1/16W
R109	NRSA63J-511X	M.G.RESISTOR	510 1/16W
R110	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R111	NRV142F-R22X	C.M.F.RESISTOR	0.22 1/4W
R112	NRS12BK-R68X	M.G.RESISTOR	0.68 1/2W
R113	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R114	NRSA63J-154X	M.G.RESISTOR	150k 1/16W
R115	NRSA63J-202X	M.G.RESISTOR	2k 1/16W
R116	NRSA63J-474X	M.G.RESISTOR	470k 1/16W
R117	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R118	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R120	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R121	NRSA63J-473X	M.G.RESISTOR	47k 1/16W
R122	NRSA63J-203X	M.G.RESISTOR	20k 1/16W
R123	NRSA63J-393X	M.G.RESISTOR	39k 1/16W
R124	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R125	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R126	NRSA63J-274X	M.G.RESISTOR	270k 1/16W
R127	NRSA63J-272X	M.G.RESISTOR	2.7k 1/16W
R128	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R131	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R132	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R133	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R134	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R135	NRSA63J-104X	M.G.RESISTOR	100k 1/16W
R136	NRSA63J-104X	M.G.RESISTOR	100k 1/16W
R138	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R139	NRS12BK-R68X	M.G.RESISTOR	0.68 1/2W
R201	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R202	NRSA63J-474X	M.G.RESISTOR	470k 1/16W
R203	NRSA63J-104X	M.G.RESISTOR	100k 1/16W
R204	NRSA63J-124X	M.G.RESISTOR	120k 1/16W
R205	NRSA63J-153X	M.G.RESISTOR	15k 1/16W
R206	NRSA63J-154X	M.G.RESISTOR	150k 1/16W
R207	NRSA63J-272X	M.G.RESISTOR	2.7k 1/16W
R208	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R209	NRS144J-1R0X	M.G.RESISTOR	1 1/4W
R210	NRS144J-1R0X	M.G.RESISTOR	1 1/4W
R211	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R212	NRSA63J-393X	M.G.RESISTOR	39k 1/16W
R213	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R214	NRSA63J-273X	M.G.RESISTOR	27k 1/16W
R215	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R216	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R217	NRSA63J-121X	M.G.RESISTOR	120 1/16W
R218	NRSA63J-121X	M.G.RESISTOR	120 1/16W
R219	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R220	NRSA63J-104X	M.G.RESISTOR	100k 1/16W
R221	NRSA63J-474X	M.G.RESISTOR	470k 1/16W
R222	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R223	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R224	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R225	NRSA63J-563X	M.G.RESISTOR	56k 1/16W
R226	NRSA63J-105X	M.G.RESISTOR	1M 1/16W
R227	NRSA63J-105X	M.G.RESISTOR	1M 1/16W
R228	NRSA63J-105X	M.G.RESISTOR	1M 1/16W
R229	NRSA63J-105X	M.G.RESISTOR	1M 1/16W
R230	NRSA63J-105X	M.G.RESISTOR	1M 1/16W
R301	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R302	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R303	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R304	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R305	NRSA63J-333X	M.G.RESISTOR	33k 1/16W
R306	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R307	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R308	NRSA63J-683X	M.G.RESISTOR	68k 1/16W
R309	NRSA63J-562X	M.G.RESISTOR	5.6k 1/16W
R310	NRSA63J-153X	M.G.RESISTOR	15k 1/16W
R311	NRSA63J-393X	M.G.RESISTOR	39k 1/16W
R312	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R313	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R314	NRSA63J-153X	M.G.RESISTOR	15k 1/16W
R315	NRSA63J-562X	M.G.RESISTOR	5.6k 1/16W
R316	NRSA63J-104X	M.G.RESISTOR	100k 1/16W
R317	NRSA63J-823X	M.G.RESISTOR	82k 1/16W
R318	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R319	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R320	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R321	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R322	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R323	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R324	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R325	NRSA63J-473X	M.G.RESISTOR	47k 1/16W
R326	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R327	NRSA63J-152X	M.G.RESISTOR	1.5k 1/16W
R328	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R329	NRSA63J-563X	M.G.RESISTOR	56k 1/16W
R330	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R331	NRSA63J-473X	M.G.RESISTOR	47k 1/16W
R332	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R333	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R334	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R335	NRSA63J-333X	M.G.RESISTOR	33k 1/16W
R336	NRSA63J-562X	M.G.RESISTOR	5.6k 1/16W
R337	NRSA63J-223X	M.G.RESISTOR	22k 1/16W
R338	NRSA63J-333X	M.G.RESISTOR	33k 1/16W
R339	NRSA63J-563X	M.G.RESISTOR	56k 1/16W
R340	NRSA63J-823X	M.G.RESISTOR	82k 1/16W
R341	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R342	NRSA63J-100X	M.G.RESISTOR	10 1/16W
R343	NRSA63J-100X	M.G.RESISTOR	10 1/16W
R344	NRSA63J-100X	M.G.RESISTOR	10 1/16W
R345	NRSA63J-100X	M.G.RESISTOR	10 1/16W
R346	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R351	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R401	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R402	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R403	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R404	NRSA63D-472X	M.G.RESISTOR	4.7k 1/16W
R405	NRSA63D-332X	M.G.RESISTOR	3.3k 1/16W
R406	NRSA63D-472X	M.G.RESISTOR	4.7k 1/16W
R407	NRSA63D-472X	M.G.RESISTOR	4.7k 1/16W
R408	NRSA63D-473X	M.G.RESISTOR	47k 1/16W
R409	NRSA63D-273X	M.G.RESISTOR	27k 1/16W
R410	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R411	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R412	NRSA63D-182X	M.G.RESISTOR	1.8k 1/16W
R413	NRSA63D-182X	M.G.RESISTOR	1.8k 1/16W
R414	NRSA63D-122X	M.G.RESISTOR	1.2k 1/16W
R415	NRSA63J-222X	M.G.RESISTOR	2.2k 1/16W
R416	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R417	NRSA63D-562X	M.G.RESISTOR	5.6k 1/16W
R418	NRSA63D-272X	M.G.RESISTOR	2.7k 1/16W
R419	NRSA63J-330X	M.G.RESISTOR	33 1/16W

Symbol No.	Part No.	Part Name	Description	
R420	NRSA63J-100X	M.G.RESISTOR	10	1/16W
R421	NRSA63J-100X	M.G.RESISTOR	10	1/16W
C104	NBE21AM-106X	TAN.CAPACITOR	10	10V
C105	NEH91CM-106X	E.CAPACITOR	10	16V
C106	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C107	NCB31HK-152X	CER.CAPACITOR	1500p	50V
C108	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C109	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C120	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C121	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C122	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C123	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C124	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C125	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C126	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C127	NCB31AK-224X	CER.CAPACITOR	0.22	10V
C128	NCB31AK-224X	CER.CAPACITOR	0.22	10V
C129	NCB31AK-224X	CER.CAPACITOR	0.22	10V
C130	NEH91CM-106X	E.CAPACITOR	10	16V
C131	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C132	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C133	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C134	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C135	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C136	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C137	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C138	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C139	NEH90JM-226X	E.CAPACITOR	22	6.3V
C140	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C142	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C143	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C144	NCB31CK-473X	CER.CAPACITOR	0.047	16V
C145	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C147	NCB11CK-105X	CER.CAPACITOR	1	16V
C148	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C149	NEH90JM-226X	E.CAPACITOR	22	6.3V
C156	NCB11CK-105X	CER.CAPACITOR	1	16V
C157	NDC31HJ-102X	CER.CAPACITOR	1000p	50V
C158	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C159	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C160	NDC31HJ-471X	CER.CAPACITOR	470p	50V
C201	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C202	NEH91CM-106X	E.CAPACITOR	10	16V
C203	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C204	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C205	NCB31HK-153X	CER.CAPACITOR	0.015	50V
C206	NCB31CK-273X	CER.CAPACITOR	0.027	16V
C207	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C209	NCF31AZ-105X	CER.CAPACITOR	1	10V
C210	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C211	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C212	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C213	NCB31CK-223X	CER.CAPACITOR	0.022	16V
C214	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C215	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C216	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C217	NCF31AZ-105X	CER.CAPACITOR	1	10V
C218	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C219	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C220	NCF31AZ-105X	CER.CAPACITOR	1	10V
C221	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C301	NEH91VM-106X	E.CAPACITOR	10	35V
C303	NDC31HJ-221X	CER.CAPACITOR	220p	50V
C304	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C305	NCB11CK-475X	CER.CAPACITOR	4.7	16V
C306	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C307	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C308	NCB11CK-105X	CER.CAPACITOR	1	16V
C309	NBE21DM-475X	TAN.CAPACITOR	4.7	20V
C311	NCB11CK-105X	CER.CAPACITOR	1	16V
C312	NBE21DM-475X	TAN.CAPACITOR	4.7	20V
C313	NDC31HJ-102X	CER.CAPACITOR	1000p	50V

Symbol No.	Part No.	Part Name	Description	
C314	NDC31HJ-221X	CER.CAPACITOR	220p	50V
C315	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C316	NCB11CK-475X	CER.CAPACITOR	4.7	16V
C317	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C318	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C319	NCB11CK-105X	CER.CAPACITOR	1	16V
C320	NCB11CK-475X	CER.CAPACITOR	4.7	16V
C321	NCB11CK-105X	CER.CAPACITOR	1	16V
C322	NCB11CK-475X	CER.CAPACITOR	4.7	16V
C323	NDC31HJ-102X	CER.CAPACITOR	1000p	50V
C401	NDC31HJ-221X	CER.CAPACITOR	220p	50V
C402	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C403	NCB11CK-475X	CER.CAPACITOR	4.7	16V
C404	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C405	NCF31AZ-105X	CER.CAPACITOR	1	10V
C407	NCF11CZ-225X	CER.CAPACITOR	2.2	16V
C408	NCF31AZ-105X	CER.CAPACITOR	1	10V
C409	NCB11CK-105X	CER.CAPACITOR	1	16V
C410	NCB10JK-106X	CER.CAPACITOR	10	6.3V
C411	NCB10JK-106X	CER.CAPACITOR	10	6.3V
C412	NCB10JK-106X	CER.CAPACITOR	10	6.3V
C413	NCB31AK-224X	CER.CAPACITOR	0.22	10V
C414	NCB10JK-106X	CER.CAPACITOR	10	6.3V
C415	NCB10JK-106X	CER.CAPACITOR	10	6.3V
C416	NCB11CK-105X	CER.CAPACITOR	1	16V
C417	NBE21AM-106X	TAN.CAPACITOR	10	10V
C418	NBE21AM-106X	TAN.CAPACITOR	10	10V
C419	NBE21AM-106X	TAN.CAPACITOR	10	10V
C420	NCB31AK-224X	CER.CAPACITOR	0.22	10V
C421	NCB10JK-106X	CER.CAPACITOR	10	6.3V
C422	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C423	NBE21AM-106X	TAN.CAPACITOR	10	10V
C424	NBE21AM-106X	TAN.CAPACITOR	10	10V
C425	NCB31HK-103X	CER.CAPACITOR	0.01	50V
C426	NBE21AM-106X	TAN.CAPACITOR	10	10V
C427	NBE21AM-106X	TAN.CAPACITOR	10	10V
L21	NQL24CN-220X	COIL	22uH	
L31	NQL42EM-220X	COIL	22uH	
L33	NQL24CN-220X	COIL	22uH	
L34	NQL24CN-220X	COIL	22uH	
L35	NQL24CN-220X	COIL	22uH	
L36	NQL24CN-220X	COIL	22uH	
L41	NQL24CN-220X	COIL	22uH	
L42	NQL24CN-220X	COIL	22uH	
L43	NQL24CN-220X	COIL	22uH	
L44	NQL24CN-220X	COIL	22uH	
L45	NQL24CN-220X	COIL	22uH	
LC11	NQR0436-001X	LC FILTER		
!F1	NMFZ011-1R6X-S	FUSE	1.6A	
CN105	QGF0508C1-26W	CONNECTOR	26PIN	
CN108	QGA1501C2-08W	CONNECTOR	8PIN	
CN111	SS30662-004	CONNECTOR	4PIN	
CN112	QGF0508C1-12W	CONNECTOR	12PIN	
CN113	QGF0508C1-18W	CONNECTOR	18PIN	
CN114	QGA1201C2-02X	CONNECTOR	2PIN	
CN116	QGF0508C1-20W	CONNECTOR	20PIN	
CN117	QGA1501C2-02W	CONNECTOR	2PIN	
CN119	QGA1201C2-02X	CONNECTOR	2PIN	
K1	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
QA11	BA6254FS-X	TRANSIST.ARRAY		

6.11 MECHA BOARD ASSEMBLY PARTS LIST 13

LK2123A0A1

13□□□□□□

Symbol No.	Part No.	Part Name	Description
VR1	NVQ0006-B14X	VAL.RESISTOR	10k MODE SENSOR
TH1	NAD0002-223X	THERMISTOR	22k
S1	NSW0171-001	PUSH SWITCH	
S2	NSW0170-001	PUSH SWITCH	
S3	NSW0170-001	PUSH SWITCH	
CN104	QGF0508F1-13X	CONNECTOR	13PIN
CN106	QGF0508F1-20X	CONNECTOR	20PIN
CN116	QGF0508F1-20X	CONNECTOR	20PIN
CN124	QGF0508F1-18X	CONNECTOR	18PIN
CN125	QGF0508F2-10X	CONNECTOR	10PIN
CN128	QGA1201C2-02X	CONNECTOR	2PIN

6.12 MECHA CONN BOARD ASSEMBLY PARTS LIST 14

LK2123A0A2

14□□□□□□

Symbol No.	Part No.	Part Name	Description
CN100	QGF0508F1-11X	CONNECTOR	11PIN
CN112	QGF0508C1-12W	CONNECTOR	12PIN

6.13 PSIF BOARD ASSEMBLY PARTS LIST 20

CK270100B1

20□□□□□□

Symbol No.	Part No.	Part Name	Description
IC2	TC7W00FU-X	I.C.(M)	TOSHIBA
IC3	TC74HC4538AFT-X	I.C.(M)	TOSHIBA
IC4	MB3886PFV	I.C.(M)	FUJITSU
IC5	LP3965EMP-ADJ-X	I.C.(M)	NATIONAL SEMICO
IC6	MB3785APFV	I.C.(M)	FUJITSU
IC7	NJM78L12UA-X	I.C.(M)	JRC
IC8	NJM79L08UA-X	I.C.(M)	JRC
IC9	NJM79L05UA-X	I.C.(M)	JRC
IC10	SN74AHC245DGV-X	I.C.(M)	TEXAS
IC11	SN74AHC245DGV-X	I.C.(M)	TEXAS
IC12	TC7WH245FU-X	I.C.(M)	TOSHIBA
IC13	NJM2903M-XE	I.C.(M)	JRC
Q1	HAT1020R-X	TRANSISTOR	HITACHI
Q2	2SA1576A/QRS/-X	TRANSISTOR	ROHM
Q3	2SC4081/QRS/-X	TRANSISTOR	ROHM
Q4	2SC4081/QRS/-X	TRANSISTOR	ROHM
Q5	2SA1576A/QRS/-X	TRANSISTOR	ROHM
Q6	DTC124EUA-X	TRANSISTOR	ROHM
Q7	DTC124EUA-X	TRANSISTOR	ROHM
Q8	RDS035L03-X	TRANSISTOR	ROHM
Q9	RDS035L03-X	TRANSISTOR	ROHM
Q10	2SA2013-X	TRANSISTOR	SANYO
Q11	2SA2013-X	TRANSISTOR	SANYO
Q12	2SA2013-X	TRANSISTOR	SANYO
Q13	2SA2013-X	TRANSISTOR	SANYO
Q14	2SC4081/QRS/-X	TRANSISTOR	ROHM
Q15	2SC4081/QRS/-X	TRANSISTOR	ROHM
Q16	2SC4081/QRS/-X	TRANSISTOR	ROHM
Q17	2SB1189-W	TRANSISTOR	ROHM
D2	1SS355-X	DIODE	ROHM
D3	MA736-X	DIODE	MATSUSHITA
D4	MA736-X	DIODE	MATSUSHITA
D5	MA738-X	DIODE	MATSUSHITA
D6	MA738-X	DIODE	MATSUSHITA
D7	MA736-X	DIODE	MATSUSHITA
D8	1SS306-X	DIODE	TOSHIBA
D10	MA736-X	DIODE	MATSUSHITA
D11	MA736-X	DIODE	MATSUSHITA
D12	MA736-X	DIODE	MATSUSHITA
D13	MA736-X	DIODE	MATSUSHITA
D16	1SS355-X	DIODE	ROHM
D17	1SS355-X	DIODE	ROHM
D18	HZU5CLL-X	ZENER DIODE	HITACHI
D19	1SS355-X	DIODE	ROHM
R1	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R2	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R3	NRSA63J-332X	M.G.RESISTOR	3.3k 1/16W
R4	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R5	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R6	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R7	NRSA63J-182X	M.G.RESISTOR	1.8k 1/16W
R8	NRSA63D-102X	M.G.RESISTOR	1k 1/16W
R9	NRSA63J-124X	M.G.RESISTOR	120k 1/16W
R10	NRSA63D-473X	M.G.RESISTOR	47k 1/16W
R11	NRSA63D-473X	M.G.RESISTOR	47k 1/16W
R12	NRSA63J-684X	M.G.RESISTOR	680k 1/16W
R14	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R15	NRSA63D-473X	M.G.RESISTOR	47k 1/16W
R16	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R17	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R18	NRSA63J-272X	M.G.RESISTOR	2.7k 1/16W
R19	NRSA63D-912X	M.G.RESISTOR	9.1k 1/16W
R21	NRSA63J-562X	M.G.RESISTOR	5.6k 1/16W
R22	NRSA63D-183X	M.G.RESISTOR	18k 1/16W
R23	NRSA63D-223X	M.G.RESISTOR	22k 1/16W
R24	NRSA63D-562X	M.G.RESISTOR	5.6k 1/16W
R25	NRSA63D-912X	M.G.RESISTOR	9.1k 1/16W
R26	NRSA63J-562X	M.G.RESISTOR	5.6k 1/16W
R27	NRSA63J-332X	M.G.RESISTOR	3.3k 1/16W
R28	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R30	NRSA63J-562X	M.G.RESISTOR	5.6k 1/16W
R31	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R33	NRSA63J-332X	M.G.RESISTOR	3.3k 1/16W
R34	NRSA63J-152X	M.G.RESISTOR	1.5k 1/16W
R35	NRSA63D-473X	M.G.RESISTOR	47k 1/16W
R36	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R37	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R38	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R39	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R40	NRSA63D-123X	M.G.RESISTOR	12k 1/16W
R41	NRSA63D-203X	M.G.RESISTOR	20k 1/16W
R43	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R44	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R45	NRSA63J-563X	M.G.RESISTOR	56k 1/16W
R46	NRSA63J-124X	M.G.RESISTOR	120k 1/16W
R48	NRSA63J-562X	M.G.RESISTOR	5.6k 1/16W
R49	NRSA63D-473X	M.G.RESISTOR	47k 1/16W
R50	NRSA63D-473X	M.G.RESISTOR	47k 1/16W
R51	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R52	NRSA63D-912X	M.G.RESISTOR	9.1k 1/16W
R53	NRSA63D-912X	M.G.RESISTOR	9.1k 1/16W
R54	NRSA63D-223X	M.G.RESISTOR	22k 1/16W
R55	NRSA63J-563X	M.G.RESISTOR	56k 1/16W
R56	NRSA63J-823X	M.G.RESISTOR	82k 1/16W
R57	NRSA63J-124X	M.G.RESISTOR	120k 1/16W
R59	NRSA63J-562X	M.G.RESISTOR	5.6k 1/16W
R60	NRSA63D-473X	M.G.RESISTOR	47k 1/16W
R61	NRSA63D-473X	M.G.RESISTOR	47k 1/16W
R62	NRSA63D-102X	M.G.RESISTOR	1k 1/16W
R63	NRSA63D-223X	M.G.RESISTOR	22k 1/16W
R64	NRSA63D-223X	M.G.RESISTOR	22k 1/16W
R65	NRSA63J-393X	M.G.RESISTOR	39k 1/16W
R66	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R67	NRSA63D-682X	M.G.RESISTOR	6.8k 1/16W
R68	NRSA63J-330X	M.G.RESISTOR	33 1/16W
R69	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R70	NRSA63D-223X	M.G.RESISTOR	22k 1/16W
R71	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R72	NRSA63D-103X	M.G.RESISTOR	10k 1/16W

Symbol No.	Part No.	Part Name	Description	
R73	NRSA63J-333X	M.G.RESISTOR	33k	1/16W
R74	NRSA63D-682X	M.G.RESISTOR	6.8k	1/16W
R75	NRSA63D-683X	M.G.RESISTOR	68k	1/16W
R76	NRSA63D-473X	M.G.RESISTOR	47k	1/16W
R77	NRSA63D-473X	M.G.RESISTOR	47k	1/16W
R78	NRSA63D-102X	M.G.RESISTOR	1k	1/16W
R79	NRSA63J-562X	M.G.RESISTOR	5.6k	1/16W
R81	NRSA63D-203X	M.G.RESISTOR	20k	1/16W
R82	NRSA63J-563X	M.G.RESISTOR	56k	1/16W
R83	NRSA63J-274X	M.G.RESISTOR	270k	1/16W
R84	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R85	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R86	NRSA63D-473X	M.G.RESISTOR	47k	1/16W
R87	NRSA63D-473X	M.G.RESISTOR	47k	1/16W
R88	NRSA63D-103X	M.G.RESISTOR	10k	1/16W
R90	NRSA63D-223X	M.G.RESISTOR	22k	1/16W
R91	NRSA63J-393X	M.G.RESISTOR	39k	1/16W
R92	NRSA63J-393X	M.G.RESISTOR	39k	1/16W
R94	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R95	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R96	NRSA63J-271X	M.G.RESISTOR	270	1/16W
R97	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R98	NRSA63J-330X	M.G.RESISTOR	33	1/16W
R99	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R100	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R101	NRSA63J-271X	M.G.RESISTOR	270	1/16W
R103	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R104	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R105	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R106	NRSA63D-473X	M.G.RESISTOR	47k	1/16W
R107	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R108	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R109	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R110	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R111	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R112	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R113	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R114	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R115	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R116	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R117	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R118	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R119	NRSA63J-330X	M.G.RESISTOR	33	1/16W
R120	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R121	NRSA63D-223X	M.G.RESISTOR	22k	1/16W
R122	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R123	NRSA63J-334X	M.G.RESISTOR	330k	1/16W
R124	NRSA63J-334X	M.G.RESISTOR	330k	1/16W
R125	NRSA63J-225X	M.G.RESISTOR	2.2M	1/16W
R126	NRSA63D-223X	M.G.RESISTOR	22k	1/16W
R127	NRSA63J-334X	M.G.RESISTOR	330k	1/16W
R128	NRSA63J-124X	M.G.RESISTOR	120k	1/16W
R129	NRSA63J-105X	M.G.RESISTOR	1M	1/16W
R130	NRSA63J-334X	M.G.RESISTOR	330k	1/16W
R131	NRSA63J-274X	M.G.RESISTOR	270k	1/16W
R132	NRSA63J-104X	M.G.RESISTOR	100k	1/16W
R135	NRSA63D-123X	M.G.RESISTOR	12k	1/16W
R136	NRSA63J-334X	M.G.RESISTOR	330k	1/16W
R137	NRSA63J-124X	M.G.RESISTOR	120k	1/16W
R138	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R139	NRSA63D-682X	M.G.RESISTOR	6.8k	1/16W
R140	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R141	NRSA63J-472X	M.G.RESISTOR	4.7k	1/16W
R143	NRSA63J-182X	M.G.RESISTOR	1.8k	1/16W
R144	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R145	NRSA63D-103X	M.G.RESISTOR	10k	1/16W
R146	NRSA63J-332X	M.G.RESISTOR	3.3k	1/16W
R149	NRSA63D-682X	M.G.RESISTOR	6.8k	1/16W
R150	NRSA63D-682X	M.G.RESISTOR	6.8k	1/16W
C1	NCB11EK-105X	CER.CAPACITOR	1	25V
C2	NCB11EK-105X	CER.CAPACITOR	1	25V

Symbol No.	Part No.	Part Name	Description	
C3	NCB11CK-105X	CER.CAPACITOR	1	16V
C4	NCB31EK-103X	CER.CAPACITOR	0.01	25V
C5	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C6	NCB11CK-105X	CER.CAPACITOR	1	16V
C7	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C8	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C9	NCB31EK-103X	CER.CAPACITOR	0.01	25V
C10	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C11	NDC31HJ-331X	CER.CAPACITOR	330p	50V
C12	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C13	NCB31CK-473X	CER.CAPACITOR	0.047	16V
C14	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C15	NCB11AK-475X	CER.CAPACITOR	4.7	10V
C16	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C17	NCB31CK-473X	CER.CAPACITOR	0.047	16V
C18	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C19	NCB31EK-103X	CER.CAPACITOR	0.01	25V
C20	NCB11EK-105X	CER.CAPACITOR	1	25V
C21	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C22	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C23	NBZ0008-826X	TAN.CAPACITOR	82	
C24	NBE51CM-336X	TAN.CAPACITOR	33	16V
C25	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C26	NDC31HJ-101X	CER.CAPACITOR	100p	50V
C27	NBE41AM-336X	TAN.CAPACITOR	33	10V
C28	NBZ0009-566X	TAN.CAPACITOR	56	
C29	NBE51CM-336X	TAN.CAPACITOR	33	16V
C30	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C31	NBZ0017-226X	TAN.CAPACITOR	22	
C32	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C33	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C34	NCB31EK-103X	CER.CAPACITOR	0.01	25V
C35	NCB31CK-473X	CER.CAPACITOR	0.047	16V
C36	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C37	NCB31CK-473X	CER.CAPACITOR	0.047	16V
C38	NDC31HJ-271X	CER.CAPACITOR	270p	50V
C39	NCB11EK-105X	CER.CAPACITOR	1	25V
C40	NCB11CK-105X	CER.CAPACITOR	1	16V
C41	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C42	NCB31EK-103X	CER.CAPACITOR	0.01	25V
C43	NCB31CK-473X	CER.CAPACITOR	0.047	16V
C44	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C45	NCB31EK-103X	CER.CAPACITOR	0.01	25V
C46	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C47	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C48	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C49	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C50	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C51	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C52	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C53	NBZ0017-226X	TAN.CAPACITOR	22	
C54	NBZ0009-566X	TAN.CAPACITOR	56	
C55	NBE41AM-336X	TAN.CAPACITOR	33	10V
C56	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C59	NEL61JM-226X	E.CAPACITOR	22	63V
C60	NEL61JM-226X	E.CAPACITOR	22	63V
C61	NCB41EM-475X	CER.CAPACITOR	4.7	25V
C62	NCB41EM-475X	CER.CAPACITOR	4.7	25V
C63	NCB11CK-105X	CER.CAPACITOR	1	16V
C64	NCB41CM-106X	CER.CAPACITOR	10	16V
C65	NCB11CK-105X	CER.CAPACITOR	1	16V
C66	NBZ0010-396X	TAN.CAPACITOR	39	
C67	NCB41CM-106X	CER.CAPACITOR	10	16V
C68	NBZ0010-396X	TAN.CAPACITOR	39	
C69	NCB41CM-106X	CER.CAPACITOR	10	16V
C70	NCB11AK-475X	CER.CAPACITOR	4.7	10V
C71	NCB31HK-102X	CER.CAPACITOR	1000p	50V
C72	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C73	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C74	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C75	NCB31CK-104X	CER.CAPACITOR	0.1	16V
C76	NCB11CK-105X	CER.CAPACITOR	1	16V
C77	NCB31CK-104X	CER.CAPACITOR	0.1	16V

20PSIF]

Symbol No.	Part No.	Part Name	Description
C78	NCB31EK-103X	CER.CAPACITOR	0.01 25V
C79	NCB31EK-103X	CER.CAPACITOR	0.01 25V
C80	NCB11AK-475X	CER.CAPACITOR	4.7 10V
C81	NCB31HK-152X	CER.CAPACITOR	1500p 50V
C82	NCB31HK-152X	CER.CAPACITOR	1500p 50V
C84	NCB31HK-222X	CER.CAPACITOR	2200p 50V
C85	NCB31CK-104X	CER.CAPACITOR	0.1 16V
C86	NCB31CK-473X	CER.CAPACITOR	0.047 16V
C87	NCB31AK-154X	CER.CAPACITOR	0.15 10V
C88	NCB31CK-473X	CER.CAPACITOR	0.047 16V
C89	NCB31EK-103X	CER.CAPACITOR	0.01 25V
L1	NQL47CM-330X	COIL	33uH
L2	NQL114K-220X	COIL	22uH
L3	NQL47CM-330X	COIL	33uH
L4	NQL44CM-220X	COIL	22uH
L5	NQL47CM-680X	COIL	68uH
L6	NQL44CM-220X	COIL	22uH
L7	NQL114K-220X	COIL	22uH
L8	NQL44CM-470X	COIL	47uH
L9	NQL44CM-220X	COIL	22uH
L10	NQL114K-220X	COIL	22uH
L11	NQL44CM-101X	COIL	100uH
L12	NQL44CM-220X	COIL	22uH
L13	NQL44CM-330X	COIL	33uH
L14	NQL44CM-220X	COIL	22uH
F1	NMFZ011-2R0X-S	FUSE	2A63V
F2	NMFZ011-2R0X-S	FUSE	2A63V
CN12	QGB1209M3-52	CONNECTOR	52PIN
CN14	QGF0508F1-30X	CONNECTOR	30PIN
CN15	QGA1201C2-13X	CONNECTOR	13PIN
CN18	QGA1201C2-11X	CONNECTOR	11PIN
CN101	QGA1201F2-06X	CONNECTOR	6PIN
T1	NQR0471-001X	D/D CON TRANS	
TB1	PGZ02228	EARTH LUG	
TB2	PGZ02228	EARTH LUG	
VA1	NAF0008-171X	VARISTOR	
VA2	NAF0008-171X	VARISTOR	
VA3	NAF0008-171X	VARISTOR	
VA4	NAF0008-171X	VARISTOR	
VA5	NAF0008-171X	VARISTOR	
VA6	NAF0008-171X	VARISTOR	
VA7	NAF0008-171X	VARISTOR	
VA8	NAF0008-171X	VARISTOR	
VA9	NAF0008-171X	VARISTOR	
VA10	NAF0008-171X	VARISTOR	
VA11	NAF0008-171X	VARISTOR	
VA12	NAF0008-171X	VARISTOR	
VA13	NAF0008-171X	VARISTOR	
VA14	NAF0008-171X	VARISTOR	
VA15	NAF0008-171X	VARISTOR	
VA16	NAF0008-171X	VARISTOR	
VA17	NAF0008-171X	VARISTOR	
VA18	NAF0008-171X	VARISTOR	
VA19	NAF0008-171X	VARISTOR	
VA20	NAF0008-171X	VARISTOR	
VA21	NAF0008-171X	VARISTOR	
VA22	NAF0008-171X	VARISTOR	

6.14 PJNC BOARD ASSEMBLY PARTS LIST 21

CK270100B2 21☐☐☐☐☐☐

Symbol No.	Part No.	Part Name	Description
SP1	SSV1568-105	FELT SPACER	
Q1	HAT1020R-X	TRANSISTOR	
Q2	DTC124EUA-X	TRANSISTOR	ROHM
Q3	HAT1020R-X	TRANSISTOR	
Q4	DTC124EUA-X	TRANSISTOR	ROHM
Q5	HAT1020R-X	TRANSISTOR	
Q6	DTC124EUA-X	TRANSISTOR	ROHM
D1	SB140L-6395	DIODE	SANYO
D2	HZM9C-X	ZENER DIODE	HITACHI
D3	HZM36NB-W	ZENER DIODE	HITACHI
D4	HZM36NB-W	ZENER DIODE	HITACHI
D5	HZM9C-X	ZENER DIODE	HITACHI
D6	HZM9C-X	ZENER DIODE	HITACHI
D7	HZM9C-X	ZENER DIODE	HITACHI
D8	HZM36NB-W	ZENER DIODE	HITACHI
R1	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R2	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R3	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R4	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R5	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R6	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R7	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
R8	NRSA63J-102X	M.G.RESISTOR	1k 1/16W
R10	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R11	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R12	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R13	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R14	NRSA63J-472X	M.G.RESISTOR	4.7k 1/16W
R15	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
C1	QEUA1EM-478	E.CAPACITOR	4700 25V
C2	NCF31EZ-104X	CER.CAPACITOR	0.1 25V
C3	NCF31EZ-104X	CER.CAPACITOR	0.1 25V
TH1	NAD0023-003X	THERMISTOR	00k
TH2	NAD0023-004X	THERMISTOR	000k
TH3	NAD0023-005X	THERMISTOR	0M
CN8	QGA1201C2-09X	CONNECTOR	9PIN
CN9	QGA1201C2-12X	CONNECTOR	12PIN
CN15	QGA1201C2-13X	CONNECTOR	13PIN
CN16	QGA1201C2-07X	CONNECTOR	7PIN
CN18	QGA1201C2-11X	CONNECTOR	11PIN
CN19	QGA3901C1-02	CONNECTOR	2PIN
CN20	QGA1501C1-04	CONNECTOR	4PIN
CN21	QGA3901C1-04	CONNECTOR	4PIN
CN22	QGA2001C1-02	CONNECTOR	2PIN
CN29	QGA1201C2-10X	CONNECTOR	10PIN
CN40	QGA1201C2-02X	CONNECTOR	2PIN
CN101	QGA1201C2-06X	CONNECTOR	6PIN
CN111	QGA2501C1-02	CONNECTOR	2PIN
TP4	NNZ0009-001X	TEST POINT	
TP5	NNZ0009-001X	TEST POINT	
BK1	QMH0015-008	BRAKER	
JK1	QNZ0097-001	JACK	DV TERMINAL
K1	NQR0351-001X	FERRITE BEADS	
K2	NQR0351-001X	FERRITE BEADS	
K3	NQR0351-001X	FERRITE BEADS	
TB1	PGZ02228	EARTH LUG	
TB2	PGZ02228	EARTH LUG	
TB3	PGZ02228	EARTH LUG	

6.15 OPE BOARD ASSEMBLY PARTS LIST 22

CK270100B3 22☐☐☐☐☐☐

Symbol No.	Part No.	Part Name	Description
D1	HZM12NB2-X	ZENER DIODE	HITACHI
D2	HZM12NB2-X	ZENER DIODE	HITACHI
D3	HZM12NB2-X	ZENER DIODE	HITACHI
D4	HZM12NB2-X	ZENER DIODE	HITACHI
R1	NRSA63D-102X	M.G.RESISTOR	1k 1/16W
R2	NRSA63D-122X	M.G.RESISTOR	1.2k 1/16W
R3	NRSA63D-222X	M.G.RESISTOR	2.2k 1/16W
R4	NRSA63D-332X	M.G.RESISTOR	3.3k 1/16W
S1	NSW0010-001X	SWITCH	REW
S2	NSW0010-001X	SWITCH	STOP
S3	NSW0010-001X	SWITCH	FF
S4	NSW0010-001X	SWITCH	PLAY
S5	NSW0010-001X	SWITCH	STILL
S6	NSW0010-001X	SWITCH	BLANK
S7	NSW0035-001X	TACT SWITCH	EJECT
S8	NSW0175-001X	PUSH SWITCH	COVER
CN34	QGF1012F1-06X	CONNECTOR	6PIN

6.16 XLRF BOARD ASSEMBLY PARTS LIST 23

CK270200B1 23☐☐☐☐☐☐

Symbol No.	Part No.	Part Name	Description
C1	NDC31HJ-221X	CER.CAPACITOR	220p 50V
C2	NDC31HJ-221X	CER.CAPACITOR	220p 50V
C3	NDC31HJ-221X	CER.CAPACITOR	220p 50V
C4	NDC31HJ-221X	CER.CAPACITOR	220p 50V
L1	NQL124J-101X	COIL	100uH
L2	NQL124J-101X	COIL	100uH
CN30	QGA1501C1-03	CONNECTOR	3PIN
JK7	QNZ0013-001	CONNECTOR	FRONT AUDIO IN
K1	NQR0351-001X	FERRITE BEADS	
K2	NQR0351-001X	FERRITE BEADS	

6.17 XLRR BOARD ASSEMBLY PARTS LIST 24

CK270200B2 24☐☐☐☐☐☐

Symbol No.	Part No.	Part Name	Description
C1	NDC31HJ-221X	CER.CAPACITOR	220p 50V
C2	NDC31HJ-221X	CER.CAPACITOR	220p 50V
C3	NDC31HJ-221X	CER.CAPACITOR	220p 50V
C4	NDC31HJ-221X	CER.CAPACITOR	220p 50V
L1	NQL124J-101X	COIL	100uH
L2	NQL124J-101X	COIL	100uH
CN31	QGA1501C1-03	CONNECTOR	3PIN
JK8	QNZ0013-001	CONNECTOR	REAR AUDIO IN
K1	NQR0351-001X	FERRITE BEADS	
K2	NQR0351-001X	FERRITE BEADS	

6.18 SWF BOARD ASSEMBLY PARTS LIST 25

CK270200B3 25☐☐☐☐☐☐

Symbol No.	Part No.	Part Name	Description
D1	HZM12NB2-X	ZENER DIODE	HITACHI
D2	HZM12NB2-X	ZENER DIODE	HITACHI
D3	HZM12NB2-X	ZENER DIODE	HITACHI
D4	HZM12NB2-X	ZENER DIODE	HITACHI
D5	HZM12NB2-X	ZENER DIODE	HITACHI
D6	HZM12NB2-X	ZENER DIODE	HITACHI
D7	HZM12NB2-X	ZENER DIODE	HITACHI
R1	NRSA63D-101X	M.G.RESISTOR	100 1/16W
R2	NRSA63D-562X	M.G.RESISTOR	5.6k 1/16W
R3	NRSA63D-103X	M.G.RESISTOR	10k 1/16W
R4	NRSA63D-183X	M.G.RESISTOR	18k 1/16W
VR1	QVQ0290-A14	VAL.RESISTOR	A10k, L AUD LEV
C1	NCB31CK-473X	CER.CAPACITOR	0.047 16V
C2	NCB31CK-473X	CER.CAPACITOR	0.047 16V
S1	QSW0052-004	TOGGLE SWITCH	AUTO WHITE
S2	QSW0189-001Z	PUSH SWITCH	VTR TRIG
S3	QSW0052-005	TOGGLE SWITCH	ZEBRA
CN10	QGA1501F1-05	CONNECTOR	5PIN
CN33	QGF1004F1-10	CONNECTOR	10PIN

6.19 SWM BOARD ASSEMBLY PARTS LIST 26

CK270200B4 26☐☐☐☐☐☐

Symbol No.	Part No.	Part Name	Description
D1	HZM12NB2-X	ZENER DIODE	HITACHI
D2	HZM12NB2-X	ZENER DIODE	HITACHI
D3	HZM12NB2-X	ZENER DIODE	HITACHI
D4	HZM12NB2-X	ZENER DIODE	HITACHI
D5	HZM12NB2-X	ZENER DIODE	HITACHI
D6	HZM12NB2-X	ZENER DIODE	HITACHI
D7	HZM12NB2-X	ZENER DIODE	HITACHI
R1	NRSA63D-222X	M.G.RESISTOR	2.2k 1/16W
R2	NRSA63D-222X	M.G.RESISTOR	2.2k 1/16W
R3	NRSA63D-222X	M.G.RESISTOR	2.2k 1/16W
R4	NRSA63D-222X	M.G.RESISTOR	2.2k 1/16W
R5	NRSA63D-222X	M.G.RESISTOR	2.2k 1/16W
R6	NRSA63D-222X	M.G.RESISTOR	2.2k 1/16W
R7	NRSA63D-222X	M.G.RESISTOR	2.2k 1/16W
S1	QSW0049-001	TOGGLE SWITCH	WHITE BALANCE
S2	QSW0049-001	TOGGLE SWITCH	OUTPUT
S3	QSW0049-001	TOGGLE SWITCH	GAIN
S4	QSW0052-002	TOGGLE SWITCH	MODE
CN28	QGF1004F1-08	CONNECTOR	8PIN

6.20 SWB BOARD ASSEMBLY PARTS LIST 27

CK270200B5 27☐☐☐☐☐☐

Symbol No.	Part No.	Part Name	Description
D1	HZM36NB-W	ZENER DIODE	HITACHI
D2	HZM12NB2-X	ZENER DIODE	HITACHI
R1	NRSA63J-0R0X	M.G.RESISTOR	0 1/16W
S1	QSW0048-001	TOGGLE SWITCH	POWER
S2	QSW0189-001Z	PUSH SWITCH	VTR TRIG
CN41	QGA1501F1-03	CONNECTOR	3PIN

6.21 AVO BOARD ASSEMBLY PARTS LIST 28

CK270200B6 28☐☐☐☐☐☐

Symbol No.	Part No.	Part Name	Description
D1	HZM12NB2-X	ZENER DIODE	HITACHI
D2	HZM12NB2-X	ZENER DIODE	HITACHI
D3	HZM12NB2-X	ZENER DIODE	HITACHI
D4	HZM12NB2-X	ZENER DIODE	HITACHI
D5	HZM12NB2-X	ZENER DIODE	HITACHI
D6	HZM12NB2-X	ZENER DIODE	HITACHI
D7	HZM12NB2-X	ZENER DIODE	HITACHI
D8	HZM12NB2-X	ZENER DIODE	HITACHI
D9	HZM12NB2-X	ZENER DIODE	HITACHI
D10	HZM12NB2-X	ZENER DIODE	HITACHI
R1	NRSA63D-750X	M.G.RESISTOR	75 1/16W
R2	NRSA63D-560X	M.G.RESISTOR	56 1/16W
R3	NRSA63D-750X	M.G.RESISTOR	75 1/16W
C1	NDC31HJ-221X	CER.CAPACITOR	220p 50V
C2	NDC31HJ-221X	CER.CAPACITOR	220p 50V
C3	NDC31HJ-221X	CER.CAPACITOR	220p 50V
C4	NDC31HJ-221X	CER.CAPACITOR	220p 50V
L1	NQL124J-101X	COIL	100uH
L2	NQL124J-101X	COIL	100uH
CN6	QGF1003C1-10	CONNECTOR	10PIN
JK5	QNN0251-001	JACK	LINE OUT
JK6	QNZ0630-001	S/BNC CONNECTOR	MON.I&YC OUT
K1	NQR0351-001X	FERRITE BEADS	
K2	NQR0351-001X	FERRITE BEADS	

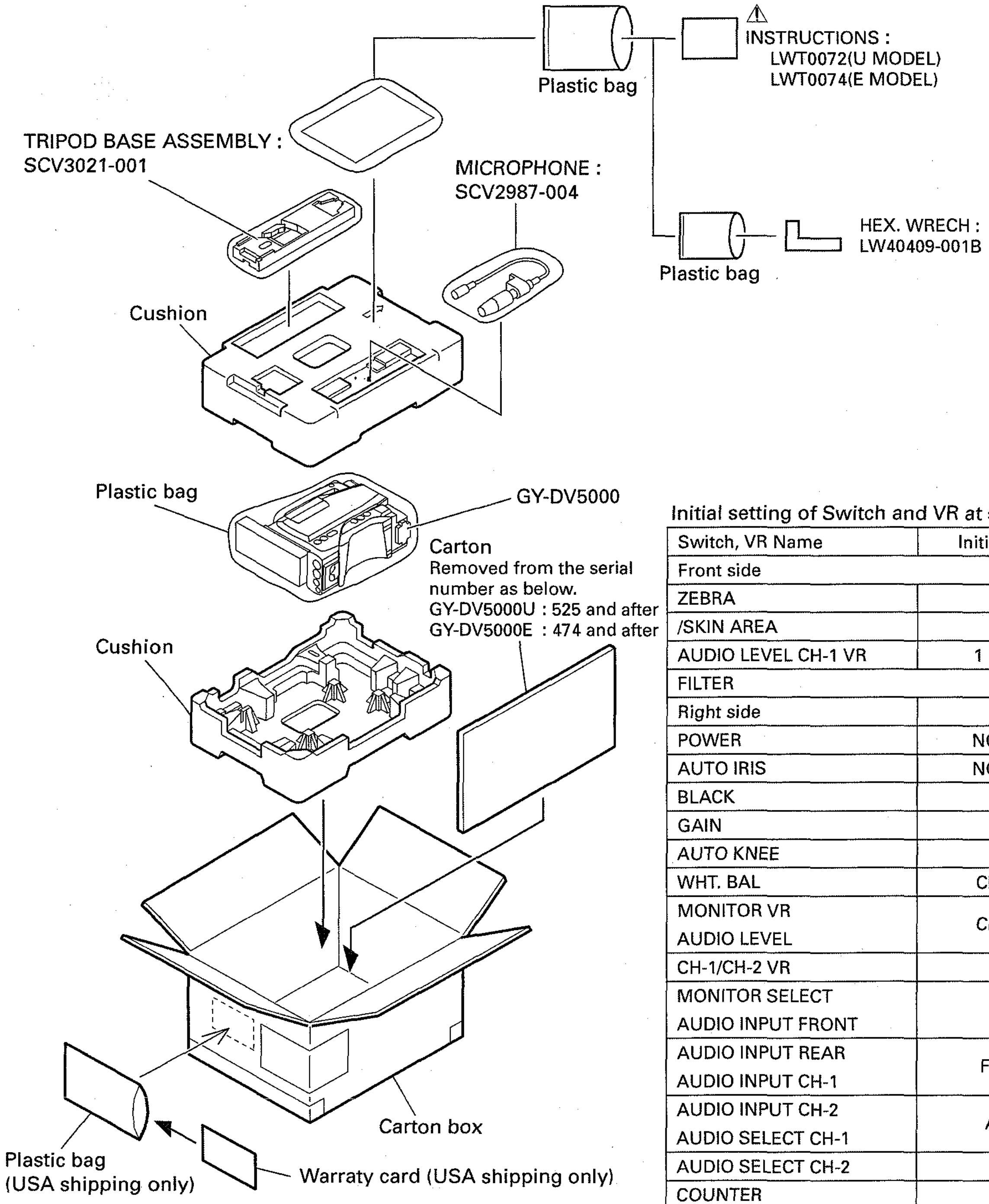
6.22 EAR BOARD ASSEMBLY PARTS LIST 29

CK270200B7 29☐☐☐☐☐☐

Symbol No.	Part No.	Part Name	Description
C1	NDC31HJ-181X	CER.CAPACITOR	180p 50V
C2	NDC31HJ-181X	CER.CAPACITOR	180p 50V
C3	NDC31HJ-181X	CER.CAPACITOR	180p 50V
C4	NDC31HJ-181X	CER.CAPACITOR	180p 50V
L1	NQL024J-4R7X	COIL	4.7uH
L2	NQL024J-4R7X	COIL	4.7uH
CN38	QGA1501C1-05	CONNECTOR	5PIN
JK2	QNS0095-001	3.5 JACK	PHONES

SECTION 7
PACKING

7.1 PACKING ASSEMBLY M 8


⚠
INSTRUCTIONS :
LWT0072(U MODEL)
LWT0074(E MODEL)
Plastic bag
TRIPOD BASE ASSEMBLY :
SCV3021-001
MICROPHONE :
SCV2987-004
HEX. WRECH :
LW40409-001B
Plastic bag
Cushion
Plastic bag
GY-DV5000
Carton
Removed from the serial number as below.
GY-DV5000U : 525 and after
GY-DV5000E : 474 and after
Cushion
Carton box
Plastic bag
(USA shipping only)
Warraty card (USA shipping only)

Note: Accessories above are subject to change without notice.

Initial setting of Switch and VR at shipment

Switch, VR Name	Initial setting
Front side	
ZEBRA	ON
/SKIN AREA	10
AUDIO LEVEL CH-1 VR	1 : 3200K
FILTER	
Right side	OFF
POWER	NORMAL
AUTO IRIS	NORMAL
BLACK	L
GAIN	ON
AUTO KNEE	B
WHT. BAL	CENTER
MONITOR VR AUDIO LEVEL	CENTER
CH-1/CH-2 VR	MIX
MONITOR SELECT AUDIO INPUT FRONT	LINE
AUDIO INPUT REAR AUDIO INPUT CH-1	FRONT
AUDIO INPUT CH-2 AUDIO SELECT CH-1	AUTO
AUDIO SELECT CH-2	TC
COUNTER	REC

TC GENE.

SECTION 8
TECHNICAL INFORMATION

8.1 COMPARISON WITH PREVIOUS MODELS

PART	ITEMS	GY-DV5000	GY-DV500	GY-DV300
CAMERA	HORIZONTAL RESOLUTION	>700TVL	550TVL	700TVL
	VERTICAL RESOLUTION	450(V.MAX) 380(NORMAL)	←	←
	SYNCHRONIZE SYSTEM	Not available	HV	Not available
	S/N	(53dB)	53dB	(53dB)
	IMAGE DEVICE	1/2"IT 3CCD	←	1/3"IT CCD
	OPTICAL SYSTEM	F1.4 RGB PRISM	←	F1.6 RGB PRISM
	LENS MOUNT	1/2"BAYONET	←	FIXED
	SENSITIVITY	F13,2000lx	F11,2000lx	←
	MINIMUM ILLUMINATION	0.2lx(F1.4 LOLUX)	0.75lx(F1.4 LOLUX)	2.65lx(F1.6 LOLUX)
	REGISTRATION	0.05%	←	(0.05%)
	OPTICAL FILTERS	4 posotions	3 positions	2 positions
	CAMERA OUT	None	BNC	None
	GENLOCK IN	None	BNC(SYNC IN)	None
	CAMERA LOCAL REMOTE	None(*1)	None	None(*1)
	LENS CONNECTOR	12PIN	←	None
VTR	TAPE FORMAT	DV/miniDV	miniDV	miniDV
	TAPE SPEED	18.8mm/s(SP)	18.8mm/s(SP)	18.8mm/s(SP) 12.555mm/s(LP)
	RECORDING COMPRESSION FORMAT	DV	DV	DV
	RECORDING TIME	270min(ME270) 60min(ME60)	60min(ME60)	60min(ME60 SP) 90min(ME60 LP)
	FF/REW TIME	150sec(ME270) 60sec(ME60)	210sec	210sec
	AUDIO TRACK	2ch (PCM,16bit,48kHz)	←	←
		2ch (PCM,12bit,32kHz) but audio truck will prepare 4ch.	←	←
	MONITOR OUT(PB/EE)	BNC	BNC	RCA
	Y/C OUT (VTR)	MINI DIN 4PIN	←	←
	AUDIO IN	XLR-3	XLR-3	XLR-3
	MIC IN(WITH PHANTOM DC)	XLR-3	XLR-3	XLR-3
	AUDIO OUT	RCAx2	RCAx2	RCAx2
	HEADPHONE OUT	STEREO MINI	MONO MINI	STEREO MINI
	DV I/O(IEEE1394)	4PIN	4PIN	4PIN
	VTR REMOTE	None	MINI DIN 6PIN	None
	TC IN	None	None	None
	TC OUT	None	None	None
	TIME CODE	SMPTE (NTSC:DF/NDF)	←	←

*1 Control will be available use with KA-DV5000(KA-DV300) via PC.

OVERALL	WEIGHT(OPERATION)	5.5kg	5.0kg	1.4kg
	DIMENSIONS(WxHxD)	120.5x249x363.5	120x245x300	130x159x357
	POWER REQUIREMENT	DC11 — 17V	DC11—17V	DC7.2V
	POWER CONSUMPTION	17W	18W	14.4w
	OPERATING TEMPERATURE	0 to 40°C	←	←
	OPERATING HUMIDITY	30 — 80%	←	←
	DC IN	XLR-4	←	Same as consumer model
	BATTERY BRACKET	IDX NP-1 TYPE	IDX NP-1 TYPE	Same as consumer model
	DC OUT	HIROSE-4P	HIROSE-4P	None
	LIGHT TERMINAL	None	None	None
	MULTI-PIN INTERFACE	Unique for KA-DV5000	None	Unique for KA-DV300
	VF OUT(WITH TALLY/BATT.IND)	6PIN	6PIN	None
	CASSETTE DOOR	○	○	○
	Casette window	○	None	None
	MIC	Provided	←	←
	TRIPOD BASE	Provided (Sony compatibility)	JVC origin	None
	STORAGE TEMPARATURE	-20 to 60°C	←	←